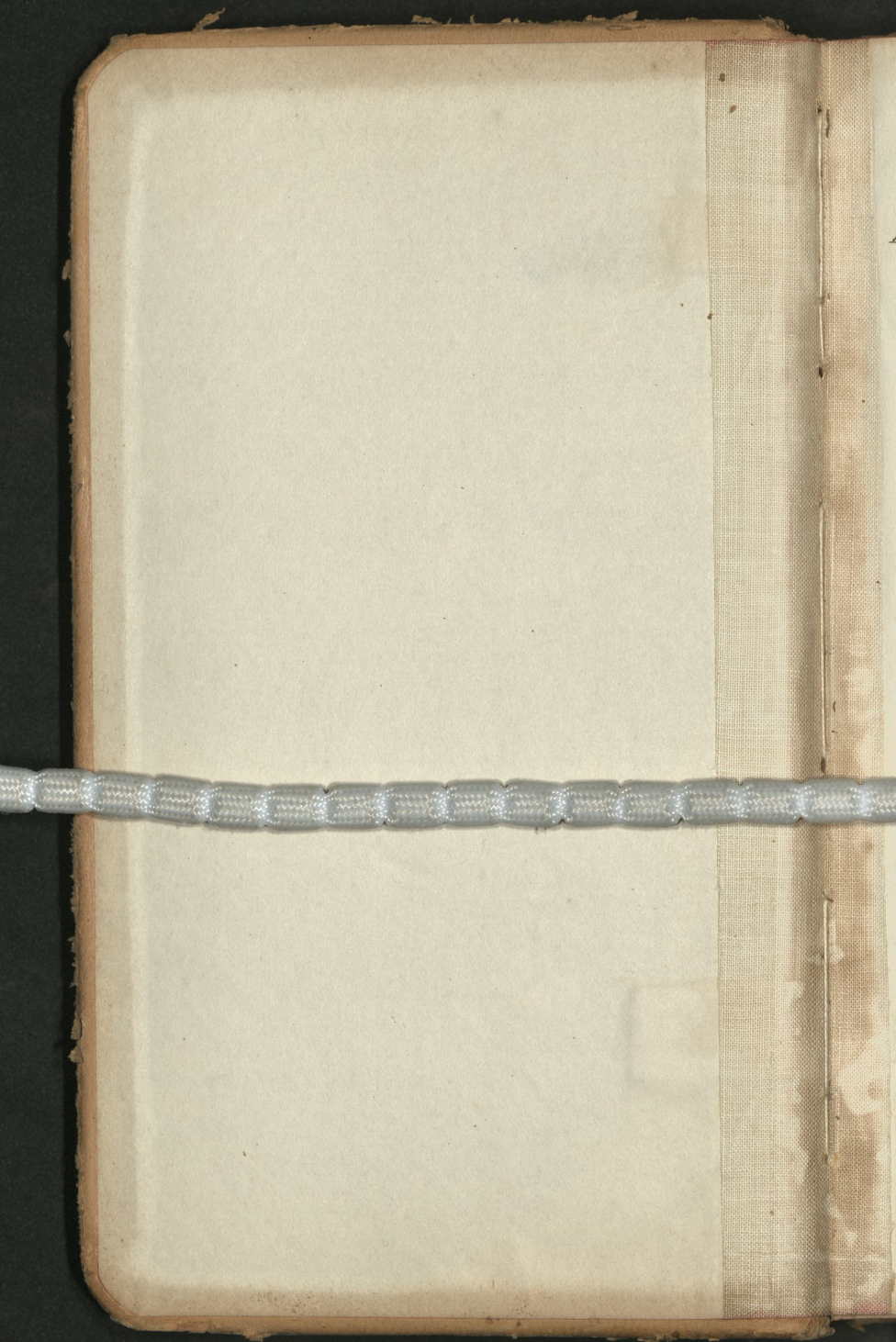


61 B8

LEVEL BOOK.

410

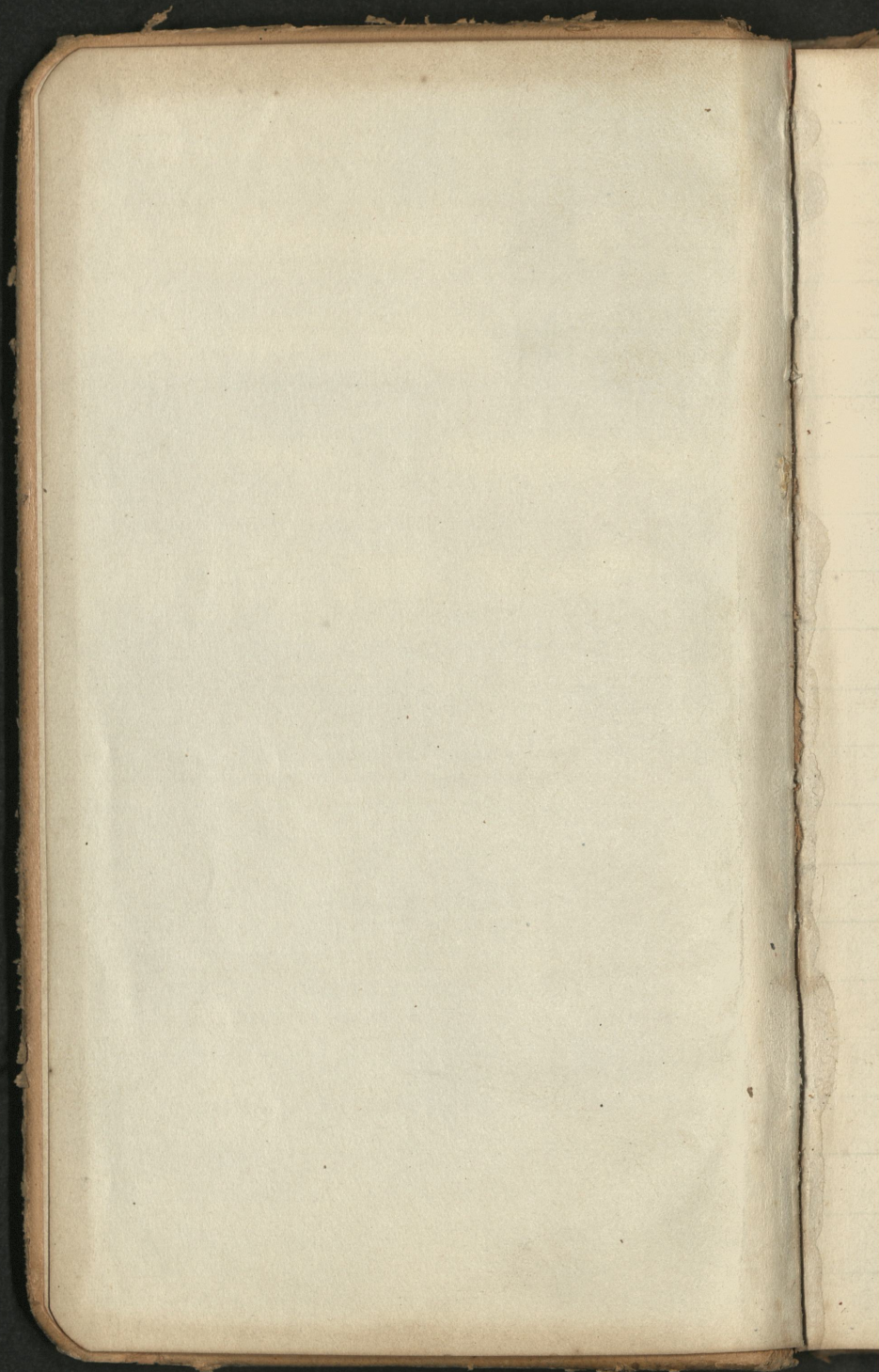


BRADSHAW MOUNTAIN R.R.

CROWN KING BRANCH

Construction Notes

Book No. 7



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Section 6

Sta	Grade.	L	C.	R
264		$\frac{+2.3}{8.6}$	+1.1	$\frac{0.0}{8.0}$
		Boulder $3.0 \times 3.0 \times 4.0 = 1.3$		
+30		$\frac{+5.2}{9.3}$	+3.4	$\frac{+1.9}{8.5}$
		Boulder $3.0 \times 3.0 \times 4.0 = 1.3$		
+50		$\frac{+5.4}{9.4}$	+3.0	$\frac{+0.6}{8.2}$
		Boulders $\frac{3.0 \times 3.0 \times 6.0}{5.0 \times 8.0 \times 10.0} = 16.8$		
+75		$\frac{+4.8}{9.2}$	+2.6	$\frac{+1.8}{8.5}$
265		$\frac{+2.4}{8.6}$	+2.4	$\frac{+1.5}{8.4}$
+15		$\frac{+2.2}{8.6}$	+1.0	$\frac{0.0}{8.0}$
+25		$\frac{+2.2}{8.6}$	+1.0	$\frac{0.0}{8.0}$
+35		$\frac{+3.5}{8.9}$	+2.8	$\frac{+1.2}{8.3}$
+75		$\frac{+5.4}{9.4}$	+4.3	$\frac{+2.8}{8.7}$
266		$\frac{+7.5}{9.9}$	+5.1	$\frac{+3.3}{8.8}$

-279

Areas		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
18.33	00 slip	2.7 1.3 42.7	
38.66	S.	7.7 1.3 40.4	
50.40	S.	9.9 16.8 46.2	
49.41	S.	4.9 39.5	
36.00	S.	1.6 14.7	
17.10	S.	0.4 6.3	
17.10	S.	0.5 11.1	
42.88	S.	13.8 84.9	
71.72	S.	17.9 75.3	
90.89	S.	21.1 60.9	
		521.91	

1100

Sta	Grade.	L	C.	R
266+30		$\frac{+3.0}{8.8}$	+0.8	$\frac{0.0}{8.0}$
+50		$\frac{+0.6}{8.2}$	+0.8	$\frac{0.0}{8.0}$
+75		$\frac{+7.6}{9.9}$	+6.3	$\frac{+4.0}{9.0}$
267		$\frac{+13.8}{11.5}$	+8.9	$\frac{+4.5}{9.1}$
+25		$\frac{+13.6}{11.4}$	+9.2	$\frac{+6.0}{9.5}$
+50		$\frac{+13.0}{11.3}$	+9.2	$\frac{+6.0}{9.5}$
+75		$\frac{+15.0}{11.8}$	+11.3	$\frac{+9.0}{10.3}$
268		$\frac{+13.6}{11.4}$	+10.2	$\frac{+8.7}{10.2}$
+25		$\frac{+9.3}{10.3}$	+6.7	$\frac{+4.0}{9.0}$
268+45		$\frac{+2.2}{8.6}$	+1.2	$\frac{0.0}{8.0}$

-2.79

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

18.72

521.9
s. 54
10.2

8.88

s. 1.4

Sta 264 to 268 + 50 $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ 2101.3
54.8 Class Slips L.R. 268.9 $\checkmark$

109.54

s. 4.1

Balance S.R. 1832.4 $\checkmark$
127.0 Haul 314.5 North $\checkmark$ yr

164.87

s. 33.2
157.1

" 1480 from 267 to 260 + 35 = 984 $\checkmark$

174.54

s. 40.0
160.3

171.68

s. 48.1
181.7

220.87

s. 42.7
194.5

199.36

s. 8.8
146.9

117.86

s. 4.5
50.6

18.76

00 0.2
1.1
1794.5
306.850.
2101.3 $\checkmark$

10/10

✓ 10/10

Sta	Grade.	L	C	R
268+50		$\frac{00}{8.0}$	-0.8	$\frac{-4.2}{13.3}$

+75		$\frac{-7.2}{17.8}$	-11.1	$\frac{-15.6}{30.4}$
-----	--	---------------------	-------	----------------------

269	6.2	$\frac{-16.0}{31.0}$	-18.5	$\frac{-20.2}{37.3}$
-----	-----	----------------------	-------	----------------------

+40		$\frac{-8.8}{20.2}$	-11.4	$\frac{-13.2}{26.8}$
-----	--	---------------------	-------	----------------------

270	04990.20	$\frac{-7.6}{18.4}$	-9.6	$\frac{-12.2}{25.3}$
-----	----------	---------------------	------	----------------------

+30		$\frac{-9.2}{20.8}$	-13.4	$\frac{-17.0}{32.5}$
-----	--	---------------------	-------	----------------------

+50		$\frac{-9.7}{21.5}$	$\frac{-11.6}{11.0}$ -11.1	$\frac{-12.1}{25.1}$
-----	--	---------------------	----------------------------	----------------------

271	-2.08	$\frac{-6.9}{17.4}$	-7.1	$\frac{-10.6}{22.9}$
-----	-------	---------------------	------	----------------------

+50		$\frac{-4.5}{13.8}$	-7.6	$\frac{-11.1}{23.7}$
-----	--	---------------------	------	----------------------

271+65		$\frac{-3.8}{12.7}$	-7.1	$\frac{-9.2}{20.8}$
--------	--	---------------------	------	---------------------

Areas		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.
00	2322		14
			171.5
	34731		512.0
	76848		817.3
	34490		693.3
	27906		404.4
	44881		295.1
	34801		511.4
	20432		371.7
	19710		100.4
	16443		123.1
			4001.6

1000

Sta	Grade.	L	C	R
271+95		$\frac{16}{9.4}$	-27	$\frac{-5.3}{15.0}$

272+25		$\frac{-21}{10.2}$	-5.1	$\frac{-7.5}{18.1}$
--------	--	--------------------	------	---------------------

+55		$\frac{00}{8.0}$	-18	$\frac{-4.1}{13.2}$
-----	--	------------------	-----	---------------------

+70		$\frac{+2.7}{8.7}$	+09	$\frac{00}{4.0} \frac{-0.9}{8.4}$
-----	--	--------------------	-----	-----------------------------------

273	-2.08	$\frac{+0.5}{8.1} \frac{00}{4.0}$	-0.5	$\frac{-2.4}{10.6}$
-----	-------	-----------------------------------	------	---------------------

+30		$\frac{+2.2}{8.6}$	+06	$\frac{00}{3.0} \frac{-1.7}{9.6}$
-----	--	--------------------	-----	-----------------------------------

+50		$\frac{00}{8.0}$	-0.5	$\frac{-7.4}{18.1}$
-----	--	------------------	------	---------------------

+65		$\frac{-0.6}{7.9}$	-2.4	$\frac{-2.4}{10.6}$
-----	--	--------------------	------	---------------------

+75		$\frac{00}{8.0}$	00	$\frac{00}{8.0}$
-----	--	------------------	----	------------------

273+95		$\frac{+4.9}{9.2}$	+3.4	$\frac{+2.5}{8.6}$
--------	--	--------------------	------	--------------------

Areas. Cub. yds.

Exc.	Emb.	Exc.	Emb.
------	------	------	------

4001.6

57.09

Sta 268+45 to 273+75

90.5 Emb 4232.5 Cy.

105.77

Made from Cuts

77.3

00

33.43

3.1

9.7

16.51

1.35

Sta 272+55 to 273+50

9.7

7.4 Exc 47.8 Cy. Solid Rock

1.00

12.05

Haul inside for

7.4

8.6

12.28

3.40

3.0

13.3

00

32.43

23.7
24.6 54.

47.8

18.1

32.70

6.0

00

00

4232.5

22.2

59.86

44.0

66.2

1000

8.16

Sta	Grade.	L	C	R
274+20		$\frac{+4.1}{9.0}$	+2.2	$\frac{0.0}{8.0}$

+45		$\frac{+2.4}{8.6}$	00	$\frac{-2.5}{10.8}$
-----	--	--------------------	----	---------------------

+70		$\frac{+1.2}{8.3}$	$\frac{0.0}{5.0}$	-1.1	$\frac{-0.6}{7.9}$
-----	--	--------------------	-------------------	------	--------------------

274+80	-2.08	$\frac{0.0}{8.0}$	+1.2	$\frac{0.0}{8.0}$
--------	-------	-------------------	------	-------------------

275+20		$\frac{+6.0}{9.5}$	+4.3	$\frac{+3.7}{8.9}$
--------	--	--------------------	------	--------------------

+50		$\frac{+6.7}{9.7}$	+5.5	$\frac{+5.1}{9.3}$
-----	--	--------------------	------	--------------------

+75		$\frac{+6.9}{9.7}$	+5.5	$\frac{+5.2}{9.3}$
-----	--	--------------------	------	--------------------

+87 04977.97

276		$\frac{+9.8}{10.5}$	+9.5	$\frac{+9.1}{10.3}$
-----	--	---------------------	------	---------------------

+30	-3.50	$\frac{+11.0}{10.8}$	+11.2	$\frac{+9.9}{10.5}$
-----	-------	----------------------	-------	---------------------

276+55		$\frac{+15.3}{11.8}$	+13.0	$\frac{+11.2}{4.0}$	$\frac{+14.6}{11.7}$
--------	--	----------------------	-------	---------------------	----------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

35.10 00

20.7

2.7 Sta 274+20 to 274+80

9.60 8.75

Emb 12.1 C.Y. ✓

5.3

8.3 made ymn Cut.

1.80 9.20

2.1

1.1

12.1

9.60 00

65.2 Sta 273+75 to 284+10 Exc. 134.29 ✓

78.36

Class Slips Lo. Rock 1620.39 ✓

98.8 Balance Solid " 11792.6" ✓

99.45

Haul 263 yds N for

" 30 " S. "

92.6 " 1300 fms 282+75 to 285+30 = 331.5 ✓

" 437 " 282+20 to 286+50 = 1879.5 ✓

100.65

" 4682 1279+50 to 297+75 = 85446 ✓

" 3250 1277+10 to 270+50 = 22912 ✓

127.3

2866.7 waste

Total Haul

113552

174.40

5/8 43.6

209.6

202.88

5. 23.3

213.5

258.22

522.4

1490.6

1000

6/6

Sta	Grade.	L	C	R
277		$\frac{+17.9}{12.5}$	$+17.9$	$\frac{+18.1}{12.6}$
+60		$\frac{+26.8}{14.7}$	$+28.1$	$\frac{+24.9}{14.2}$
277+85		$\frac{+28.4}{15.1}$	$+27.0$	$\frac{+26.1}{14.5}$
278+30		$\frac{+32.4}{16.1}$	$+32.7$	$\frac{+30.8}{15.7}$
+65		$\frac{+33.6}{16.3}$	$+33.2$	$\frac{+35.2}{16.8}$
279		$\frac{+30.2}{15.6}$	$+32.1$	$\frac{+35.0}{16.8}$
+25		$\frac{+23.4}{13.8}$	$+27.5$	$\frac{+31.6}{11.0}$ $\frac{+30.4}{15.6}$
279+65		$\frac{+16.7}{12.2}$	$+19.5$	$\frac{+21.8}{13.5}$
279+85		$\frac{+11.3}{10.8}$	$+12.7$	$\frac{+16.0}{12.0}$
280+05		$\frac{+9.9}{10.5}$	$+10.9$	$\frac{+14.0}{11.5}$

-350

Areas.		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.
368.65		1490.6	
		Slip 64.3	
		1090.6	
612.85		S. 90.8	
		569.7	
617.60		S. 208.4	
		1158.6	
772.73		S. 166.9	
		1034.3	
823.06		S. 168.0	
		1039.5	
780.82		S. 122.5	
		655.7	
635.48		S. 188.5	
		770.4	
404.58		S. 78.0	
		243.9	
253.98		S. 34.7	
		173.9	
215.50		9.2	
		67.5	
		9426.0	

1000

Sta Grade

L C R

280+15

$\frac{+9.2}{10.3}$ +82 $\frac{+7.4}{9.9}$

+60

$\frac{+14.4}{11.6}$ +11.3 $\frac{+9.4}{10.4}$

280+90

$\frac{+10.1}{10.5}$ +91 $\frac{+8.6}{10.2}$

281+10

$\frac{+9.3}{10.3}$ +5.6 $\frac{+2.5}{8.6}$

+40

$\frac{+8.9}{10.2}$ +7.5 $\frac{+5.9}{9.5}$

+65

$\frac{+7.9}{10.0}$ +5.8 $\frac{+5.0}{9.3}$

282

$\frac{+17.8}{12.5}$ +13.7 $\frac{+11.0}{10.8}$

+25

$\frac{+23.9}{14.0}$ +20.2 $\frac{+16.8}{12.2}$

+50

$\frac{+25.6}{14.4}$ +23.6 $\frac{+9.9}{10.5}$

282+90

$\frac{+21.8}{13.5}$ +15.8 $\frac{+12.6}{11.2}$

+94.5 04953.21

Areas.		Cub. yds.	
Exc.	Emb.	Exc	Emb.
149.22		9426.0	
		S. 39.4	
		307.3	
219.50		S. 30.9	
		215.8	
168.99		S. 14.8	
		99.7	
100.12		S. 15.1	
		129.6	
133.08		S. 28.7	
		111.4	
107.57		S. 74.1	
		247.8	
274.80		S. 74.6	
		325.1	
427.42		S. 61.0	
		366.0	
363.07		S. 35.0	
		515.4	
332.73		S. 3.0	
		280.0	
		12400.7	

1140

Sta	Grade.	L	C.	R
283+15		$\frac{+16.4}{121}$	+146	$\frac{+102}{106}$

+50	-33.2	$\frac{+136}{114}$	+74	$\frac{+30}{88}$
-----	-------	--------------------	-----	------------------

+70		$\frac{+88}{102}$	+35	$\frac{00}{80}$
-----	--	-------------------	-----	-----------------

+84⁵ 0 4950.20

284		$\frac{+0.7}{82}$	$\frac{00}{65}$	-37	$\frac{-165}{31.8}$
-----	--	-------------------	-----------------	-----	---------------------

+10		$\frac{00}{80}$	-43	$\frac{-176}{33.4}$
-----	--	-----------------	-----	---------------------

+30		$\frac{-35}{123}$	-82	$\frac{-231}{41.7}$
-----	--	-------------------	-----	---------------------

Boulder 3.0x3.0x3.0 = 1.0

+70	-31.8	$\frac{00}{80}$	-16	$\frac{-240}{43.0}$
-----	-------	-----------------	-----	---------------------

285		$\frac{-5.7}{15.6}$	-116	$\frac{-425}{70.8}$
-----	--	---------------------	------	---------------------

+50		$\frac{00}{80}$	-45	$\frac{-218}{39.7}$
-----	--	-----------------	-----	---------------------

285+75		$\frac{+7.0}{9.8}$	+26	$\frac{00}{80}$
--------	--	--------------------	-----	-----------------

Areas		Cub Yds.	
Exc.	Emb.	Exc.	Emb.
		12400.7	

272.11

s. 45.5

267.8

141.14

77.1

67.05 00

37.5 47.6

0.53 12861 115.1

0.1

51.7 Sta 283+90 to 285+75

00 150.61

12828.7

584.254

Emb 1885.4 @ 11. ✓

13412.9

172.3 made from cut

314.50 ✓

1.0 325.4

124.80

441.5

669.82

790.2

00 183.63

15.8 56.7

1885.4 ✓

51.14 00

16.6

✓

33.4

✓ 1885.4

	Sta	Grade.	L	C	R
2	285	+85	$\frac{+4.0}{9.0}$	+1.9	$\frac{+1.5}{8.4}$

	+90	$\frac{+3.0}{8.8}$	+1.0	$\frac{0.0}{8.0}$
--	-----	--------------------	------	-------------------

286	$\frac{+0.8}{8.2}$	$\frac{0.0}{7.0}$	-3.0	$\frac{-15.4}{30.1}$
-----	--------------------	-------------------	------	----------------------

Boulder $3.0 \times 6.0 \times 7.0 = 4.7$

2	+20	$\frac{+0.6}{8.2}$	$\frac{0.0}{5.5}$	-3.3	$\frac{-31.2}{53.8}$
---	-----	--------------------	-------------------	------	----------------------

	+50	$\frac{+6.0}{9.5}$	+0.4	$\frac{0.0}{2.0}$	$\frac{-18.0}{34.0}$
--	-----	--------------------	------	-------------------	----------------------

	+80	$\frac{+0.4}{8.1}$	$\frac{0.0}{7.0}$	-4.0	$\frac{-18.4}{34.6}$
--	-----	--------------------	-------------------	------	----------------------

287	$\frac{+5.2}{9.3}$	$\frac{0.0}{2.5}$	-2.0	$\frac{-28.8}{50.2}$
-----	--------------------	-------------------	------	----------------------

2	+20	$\frac{+2.1}{8.5}$	$\frac{0.0}{1.5}$	-2.8	$\frac{-45.0}{74.5}$
---	-----	--------------------	-------------------	------	----------------------

	+40	$\frac{+8.8}{10.2}$	+2.9	$\frac{0.0}{8.0}$
--	-----	---------------------	------	-------------------

2	287	+55	$\frac{+17.5}{12.4}$	+7.2	$\frac{+4.1}{9.0}$
---	-----	-----	----------------------	------	--------------------

Areas.		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.

38.56

33.4

5.5

20.40 00

39 13.5

0.40 109.55

4.7
0.4

Sta 285+90 to 287+40
Emb'd 709.1 @ 4. ✓
made from cuts.

0.75 207.05

15.0 140.0

26.30 45.00

14.7 107.0

0.20 147.60

5.4 111.5

14.30 153.50

7.8 154.6

6.82 263.90

25.3 65.2

61.59 00

709.1

62.5

163.44

155.8
334.4

140

80/6

	Sta	Grade.	L	C	R
2	287	+78	$\frac{+24.5}{14.1}$	+8.2	$\frac{+2.7}{8.7}$

	+80	$\frac{+25.4}{14.2}$	+20.2	$\frac{+20.0}{2.0}$	$\frac{+8.0}{2.0}$	$\frac{+2.8}{8.7}$
--	-----	----------------------	-------	---------------------	--------------------	--------------------

	287	+95	$\frac{+31.2}{15.8}$	+26.3	$\frac{+26.2}{2.0}$	$\frac{+9.4}{5.0}$	$\frac{+8.0}{10.0}$
--	-----	-----	----------------------	-------	---------------------	--------------------	---------------------

2	288	+10	$\frac{+26.2}{14.6}$	+15.8	$\frac{+14.3}{4.0}$	$\frac{+7.6}{9.9}$
---	-----	-----	----------------------	-------	---------------------	--------------------

	+35	$\frac{+22.3}{13.6}$	+16.1	$\frac{+7.5}{9.9}$
--	-----	----------------------	-------	--------------------

	+40	$\frac{+20.5}{13.1}$	+14.7	$\frac{+7.8}{10.0}$
--	-----	----------------------	-------	---------------------

	+85	$\frac{+23.2}{13.8}$	+12.1	$\frac{+1.7}{5.0}$	$\frac{+0.4}{8.1}$
--	-----	----------------------	-------	--------------------	--------------------

2	289		$\frac{+27.7}{14.9}$	+18.8	$\frac{+13.2}{2.0}$	$\frac{+7.4}{9.9}$
---	-----	--	----------------------	-------	---------------------	--------------------

Boulder 30x40x80 = 36

	+40	$\frac{+25.4}{14.4}$	+15.2	$\frac{+11.6}{7.0}$	$\frac{+7.5}{9.9}$
--	-----	----------------------	-------	---------------------	--------------------

+40' ○ 493253

28	289	+60	$\frac{+18.8}{12.7}$	+8.6	$\frac{00}{8.0}$
----	-----	-----	----------------------	------	------------------

Areas. Cub. yds.
Exc. Emb. Exc. Emb.

202.28

334.4

19.4 Sta 285+50 to 290+55 Exc. 3503.8 Cy. ✓

320.42

Class Slips on L²⁸⁸

Loose Rock 100.0 Cy. ✓

220.7 Balance cut

Solid Rock 3403.8 " ✓

473.97

S. 100.0

225.5 Haul 151. So. from

337.73

" 283.8 N. "

Slp 39.8

299.1 " 2850 from 288+55 to 291+05 = 7125 ✓

308.38

S. 2.0
54.8

282.99

S. 127.9
414.2

214.03

S. 80.9
148.8

321.70

141.1
3.6
479.3

325.41

S. 40.8
181.3

164.21

S. 32.8
124.7

3071.1

5616

Sta Grade.

L C R

2 289+85

+13.5 00
114 +5.3 8.0

Boulder 7.0 x 15.0 x 15.0 = 58.3

-3.3x

290+15

+11.8 00 -67.2
11.0 +5.3 6.0 92.4

+30' 0 4929.52

+55

00
8.0 -4.8 -18.9
33.0

2 291

-3.50

-5.7
15.5 -14.6 -72.4
106.6

+20

-4.2
13.3 -15.8 -102.6
148.1

+50

00
8.0 -5.2 -48.8
74.1

+55.4 0 4925.14

292

-3.17

+5.3 00
9.3 2.0 -0.7 -25.6
42.2

+114 0 4923.37

2 +40

+11.0
10.8 +4.9 00
8.0

292+80

-2.82

+21.1
13.3 +12.4 +6.6
9.6

Boulder 3.0 x 5.0 x 9.0 = 5.0

2 293+10

+26.1
14.5 +15.9 +10.6
10.7

Areas.

3071.1

Cub. yds.

11

Exc. Emb. Exc. Emb.

3071.1

10541 00

583

109.8

124

9225 3360

456

146.8 Sta 284.85 to 294.40

3284.8

00 16453 219.0 50.

Emb 3943.5 cu.

3503.8

1107.7 made from cuts.

116468

1042.1

164886

1129.5

00 38426

1.0 453.1

1.59 10507

slip 36.0

67.9

51.9

90.06 00

3943.5 ✓

s. 2.04

2539

252.78

s. 32.4

5.0

333.3

347.14

s. 53.7

6122

1415.6

Sta	Grade	L	C	R
2 293+50		$\frac{+312}{15.8}$	+20.9	$\frac{+16.0}{12.0}$

+75		$\frac{+344}{16.6}$	+25.0	$\frac{+17.6}{12.4}$
-----	--	---------------------	-------	----------------------

294		$\frac{+372}{17.3}$	+25.3	$\frac{+19.0}{12.8}$
-----	--	---------------------	-------	----------------------

+25		$\frac{+350}{16.8}$	+26.5	$\frac{+20.0}{13.0}$
-----	--	---------------------	-------	----------------------

+60		$\frac{+325}{16.1}$	+25.1	$\frac{+18.7}{12.7}$
-----	--	---------------------	-------	----------------------

+66⁴ 04916.08

294+85		$\frac{+25.5}{14.4}$	+19.5	$\frac{+14.0}{10.5}$
--------	--	----------------------	-------	----------------------

295+05		$\frac{+21.2}{13.3}$	+17.2	$\frac{+13.6}{11.4}$
--------	--	----------------------	-------	----------------------

+22⁴

+30		$\frac{+12.8}{11.2}$	+9.1	$\frac{+6.5}{9.6}$
-----	--	----------------------	------	--------------------

Boulder 3.0 x 3.0 x 5.0 = 17

+45		$\frac{+3.2}{8.8}$	+2.0	$\frac{0.0}{8.0}$
-----	--	--------------------	------	-------------------

+56³ 04913.12

2 295+75		$\frac{0.0}{8.0}$	-3.2	$\frac{-15.8}{29.8}$
----------	--	-------------------	------	----------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

479.31

\$ 1 34.0
486.0

570.50

Sta 291+50 to 295+75 Exp.
\$ 266.8
544.5 6083.0 Cy. Solid Rock

605.57

\$ 140.0
565.0 Hand 135.3 & free

614.85

" 406. N "
\$ 123.9
765.5 " 2950 from 2944 to 2964.5 = 6195

566.24

" 2380.293 + 456.297 + 05
\$ 132.6
447.7 around cut 590' = 1356.6
Total Hand 1976.1

400.78

\$ 126.5
278.7

351.62

\$ 109.8
242.3

171.80

\$ 23.8
1.7
55.9

29.60 00

	11.0	429
	5871.3	
00	115.78	549.1
	6083.0	5920.1

Hand

8616

Sta	Grade.	L	C	R
296	+123.0 4911.35	-7.2		-33.5
296+15		16.9	-13.8	53.1

+50	-11.6		-68.2
	23.0	-18.8	100.8

296+80	-14.2		-80.2
	27.1	-22.0	117.3

297	-18.7		-52.0
297+05	32.7	-33.0	78.5

+30	-14.0		-50.2
	26.3	-24.0	76.0

+50	-16.0		-49.6
	29.0	-26.5	75.2

298	-9.5		-59.2
	20.1	-19.9	88.4

+43.1 4904.75

+50	-12.0		-64.0
	25.0	-23.0	95.0

298+90	-6.4		-52.8
298+99.5 Back	15.8	-18.0	79.6
299+01' Ford			

299	0.0		-47	-27.8	-32.2
299+15	8.0	-3.7	6.0	40.0	51.3

Areas		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
	62545		592.0
		1340.7	
	1443.02		
		1867.7	
	1918.80		
		1852.3	
	2082.25		
		1636.4	
	1452.30		
		1134.3	
	1610.25		
		2713.2	
	1320.03		
		2746.3	
	1646.00		
		2008.7	
	1065.80		
		594.5	
00	218.27	172.9	
		16659.0	

322
573

Sta grade.

L

P.

R

299+45

-35.0

 $\frac{+36}{8.9}$ $\frac{00}{2.0}$

-14

 $\frac{-19.4}{33.7}$

+65

 $\frac{+9.4}{10.4}$

+4.1

 $\frac{00}{8.0}$

+73 04900.33

300

 $\frac{+16.6}{12.2}$

+9.2

 $\frac{+4.3}{9.1}$

+50

 $\frac{+19.7}{12.9}$

+16.8

 $\frac{+11.3}{10.8}$

301

 $\frac{+39.0}{17.8}$

+28.7

 $\frac{+21.5}{13.4}$

+40

 $\frac{+41.3}{18.3}$

+32.2

 $\frac{+25.2}{14.3}$

+65

 $\frac{+45.0}{19.3}$

+26.4

 $\frac{+20.2}{13.1}$

+89.7 04893.27

301+90

 $\frac{+23.8}{14.0}$

+15.8

 $\frac{+11.1}{10.3}$

302+30

-35.0

 $\frac{+7.9}{10.0}$

+2.3

 $\frac{00}{8.0}$

302+45

 $\frac{00}{8.0}$

-26

 $\frac{-16.2}{31.3}$

Areas.

Cub. yds.

14

Exc. Emb. Exc. Emb.

10.80

92.89

slip

4.0

10.7

31.9

16659.0

Sta 295+45 to 299+65

22.9 Emb 16681.9 C.Y. ✓

75.32

00

S. 58.4

166.5

16681.9 Made from cuts.

181.58

2 102.6

467.3

Sta 299+65 to 302+40 Exp.

323.08

3. 134.3

937.8

Haul 373.9 yds So. free

5587.0 C.Y. Solid Rock

689.72

S. 404.1

1096.7

" 1000. " N "

3040 from 301 to 298+60 = 7246.0

790.86

S. 208.4

684.9

" 1000. 301+55 to 302+80 = 1250.0

Total haul 8546.0

688.48

S. 154.8

474.1

335.52

180.4

287.3

52.30

00

9.7

20.0

5413.9

00

107.79

173.1

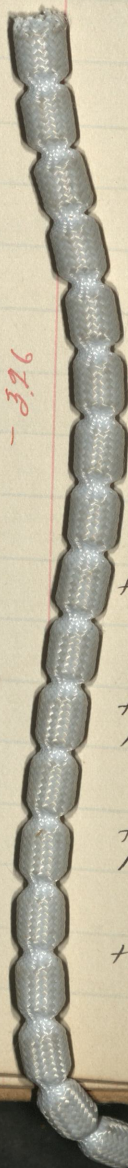
466.3

5587.0

486.3

16%

Sta	Grade.	L	C	R
302+65		$\frac{52}{15.1}$	-129	$\frac{-75.1}{119.7}$
303+01.5	04889.36			
303+15		$\frac{-259}{45.9}$	-40.0	$\frac{-62.6}{100.9}$
+50		$\frac{-13.0}{26.5}$	-19.9	$\frac{-38.3}{64.5}$
+75		$\frac{0.0}{8.0}$	-4.0	$\frac{-19.2}{35.8}$
303+95		$\frac{+12.9}{11.2}$	+4.8	$\frac{0.0}{8.0}$
304+25		$\frac{+15.4}{11.9}$	+9.9	$\frac{+6.4}{9.6}$
+50		$\frac{+20.0}{13.0}$	+14.3	$\frac{+9.3}{10.3}$
305		$\frac{+18.8}{12.7}$	+13.2	$\frac{+10.0}{10.5}$
+25		$\frac{+19.4}{12.9}$	+15.0	$\frac{+12.2}{11.1}$
305+40		$\frac{+17.5}{12.4}$	+13.1	$\frac{+11.4}{10.8}$



-326

Areas.

Cub. yds.

Exc. Emb. Exc. Emb.

486.3

115121

Sta 301+30 to 303+95

4071.3 Emb 7976.7 C.Y.

3245.75

made from cuts.

28069

108500

5740

00 15480

241 38.2

9768 00

7976.7

slip

5.2

Sta 303+75 to 306+65.

193.63

Exc. 2533.7 C.Y. Solid Rock

s.

41.1

221.0 Haul 4/33 So. free

283.80

s.

80.5

" 1970 from 305+20 to 303+30 = 3743

511.2

268.32

s.

140.6

266.1

306.40

s.

54.3

159.4

267.56

s.

46.2

126.6

1838.1

WED

SW

Sta	Grade.	L	C	R
305+55		$\begin{array}{r} +15.0 \\ 11.8 \end{array}$	+10.0	$\begin{array}{r} +15.7 \\ 9.3 \end{array}$
305+80		$\begin{array}{r} +14.7 \\ 11.7 \end{array}$	+10.5	$\begin{array}{r} +16.2 \\ 9.6 \end{array}$
	+937 04879.83			
306+15		$\begin{array}{r} +10.3 \\ 10.6 \end{array}$	+6.6	$\begin{array}{r} +1.8 \\ 8.5 \end{array}$
+25		$\begin{array}{r} +8.9 \\ 10.2 \end{array}$	+3.8	$\begin{array}{r} 0.0 \\ 8.0 \end{array}$
+45		$\begin{array}{r} +1.3 \\ 8.3 \end{array} \begin{array}{r} 0.0 \\ 5.0 \end{array}$	-1.6	$\begin{array}{r} -6.8 \\ 17.2 \end{array}$
+65	-350	$\begin{array}{r} 0.0 \\ 8.0 \end{array}$	-3.1	$\begin{array}{r} -18.4 \\ 34.6 \end{array}$
306+80		$\begin{array}{r} -2.9 \\ 11.4 \end{array}$	-7.0	$\begin{array}{r} -25.2 \\ 44.8 \end{array}$
307+20		$\begin{array}{r} -5.2 \\ 14.8 \end{array}$	-11.8	$\begin{array}{r} -37.5 \\ 63.3 \end{array}$
+65		$\begin{array}{r} -14.2 \\ 28.3 \end{array}$	-21.8	$\begin{array}{r} -27.5 \\ 48.3 \end{array}$
308		$\begin{array}{r} -2.8 \\ 11.2 \end{array}$	-7.7	$\begin{array}{r} -8.2 \\ 19.3 \end{array}$

Areas.

Cub. yds.

Exc. Emb. Exc. Emb.

188.30

S. 57.7
177.6

195.43

S. 45.1
198.9

111.43

S. 5.2
33.6

70.18 00

26.7 10.3

1.96 41.56

0.4 63.7

00 130.43

2383.3

150.4

2533.7

118.2

295.05

670.6

610.24

1325.9

980.89

736.8

155.93

86.8

3012.3

1000

Sta	Grade.	L	C	R
308+25		$\frac{00}{8.0}$	-2.0	$\frac{-3.3}{12.0}$

+45		$\frac{+2.7}{8.7}$	+1.0	$\frac{00}{8.0}$
-----	--	--------------------	------	------------------

309		$\frac{+12.0}{11.0}$	+9.0	$\frac{+7.4}{9.9}$
-----	--	----------------------	------	--------------------

+35		$\frac{+13.4}{11.4}$	+10.6	$\frac{+9.5}{10.4}$
-----	--	----------------------	-------	---------------------

+60		$\frac{+18.8}{12.7}$	+16.3	$\frac{+15.2}{11.8}$
-----	--	----------------------	-------	----------------------

+75		$\frac{+20.9}{13.2}$	+17.4	$\frac{+13.5}{11.3}$
-----	--	----------------------	-------	----------------------

310		$\frac{+15.6}{11.9}$	$\frac{+13.4}{10.0}$	$\frac{+8.8}{10.2}$
-----	--	----------------------	----------------------	---------------------

+15		$\frac{+16.2}{12.1}$	+14.5	$\frac{+12.0}{11.0}$
-----	--	----------------------	-------	----------------------

+35		$\frac{+16.6}{12.2}$	+14.0	$\frac{+12.6}{8.0}$
-----	--	----------------------	-------	---------------------

310+50		$\frac{+10.2}{10.6}$	+6.4	$\frac{+3.3}{8.8}$
--------	--	----------------------	------	--------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
00	31.55		3012.3
			Sta 306+25 to 308+40
		4.7	7.8
			Cut 3020.1 @ 4.
19.15	00		3020.1 Made from Cut.
		Sip 6.3	
		194.3	
171.65		S 47.7	
		245.5	
207.14		S 92.8	
		251.3	Sta 308+25 to 313+72 @ 316.4 @ 4
			Class Slips 10% L. Rock 41.9 "
335.68		S 27.3	
		190.7	Balance Cut Solid " 3118.5 "
			Haul 166 So far
350.75		S 20.9	" 190. N. "
		265.9	" 1710 from 304+70 to 307+40 = 3932.
223.56		S 33.1	
		1140.0	" 560 + 310+60 = 303+05 = 4228 "
			" 240 + 311+90 " 314 504
			Total haul 8664
280.28		S 60.6	
		204.6	
272.06		S 27.4	
		107.8	
116.08		S 11.3	
		116.7	
		2048.9	

near

8664

Sta	Grade.	L.	C.	R.
310+70		$\frac{+136}{114}$	+106	$\frac{+78}{100}$

310+90		$\frac{+124}{111}$	+93	$\frac{+79}{100}$
--------	--	--------------------	-----	-------------------

311+10		$\frac{+58}{95}$	+41	$\frac{+23}{86}$
--------	--	------------------	-----	------------------

+30		$\frac{+114}{109}$	+78	$\frac{+45}{91}$
-----	--	--------------------	-----	------------------

+55		$\frac{+75}{99}$	+45	$\frac{00}{80}$
-----	--	------------------	-----	-----------------

312		$\frac{+52}{93}$	+10	$\frac{00}{25} \frac{-61}{162}$
-----	--	------------------	-----	---------------------------------

+15		$\frac{+53}{93}$	+08	$\frac{00}{10} \frac{-62}{163}$
-----	--	------------------	-----	---------------------------------

+25		$\frac{+15}{84}$	$\frac{00}{3.0}$	$\frac{-100}{22.0}$
-----	--	------------------	------------------	---------------------

+45		$\frac{+55}{94}$	+17	$\frac{00}{45} \frac{-20}{100}$
-----	--	------------------	-----	---------------------------------

313		$\frac{+61}{95}$	+25	$\frac{00}{80}$
-----	--	------------------	-----	-----------------

Boulder 30x80x140 = 124

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
199.02		2048.9	
		S. 12.2	
		140.1	Allow 31.1 Cu. Lo. Rock
179.32			borrowed from Slope
		S. 15.1	
		92.1	of cut for dressing
69.51			top of grade
		S. 4.0	
		78.2	
141.60			
		S. 3.7	
		98.1	
70.28	00		
		S. 8.9	
		80.8	7.6
26.70	137.3		Sta 311+55 to 313
		S. 3.3	
		14.5	9.0 Emb 53.2 made
25.32	18.60		from Cut.
		S. 3.3	
		5.4	13.6
3.75	55.00		
		S. 4.4	
		13.9	21.3
33.82	2.50		
		S. 24.5	
		80.7	1.7
45.40	00	12.4	53.2
		74.1	
		2818.6	

1000

80%

Sta	Grade.	L	C	R
313+40		$\frac{+7.0}{9.8}$	+3.0	$\frac{0.0}{8.0}$
+60		$\frac{+3.1}{8.8}$	+2.0	$\frac{0.0}{8.0}$
+72	-3.50	$\frac{0.0}{8.0}$	-2.1	$\frac{-12.0}{16.0} \quad \frac{-10.0}{22.0}$
+80		$\frac{-2.8}{11.2}$	-8.0	$\frac{-16.6}{31.9}$
313+95		$\frac{-0.9}{8.4}$	-6.1	$\frac{-19.8}{36.7}$
+96	04851.75	Boulder 2.0x4.0x9.0 = 2.7		
314+10		$\frac{-2.5}{10.8}$	-8.8	$\frac{-16.4}{11.0} \quad \frac{-20.6}{37.9}$
+17		$\frac{0.0}{8.0}$	-10.0	$\frac{-19.2}{35.8}$
+20	-3.22	$\frac{+3.8}{9.0}$	+2.2	$\frac{+22.0}{2.0} \quad \frac{0.0}{2.5} \quad \frac{-16.0}{12.0} \quad \frac{-19.2}{35.8}$
+37		$\frac{+5.0}{9.3}$	+3.1	$\frac{0.0}{8.0}$
314+55		$\frac{+2.5}{8.6}$	$\frac{0.0}{3.0}$	$\frac{-0.7}{2.58} \quad \frac{-12.5}{2.58}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
5470		2818.6	
		3.	75
			31.1
29.20	00	3.	45
			43
			166
		2866.0	
00	112.20	294.4	50.
		3160.4	✓ 522
	240.30		
			125.1
	210.01		
		27	162.3
	374.25		
			85.6
00	286.20		
		1.1	28.0
-192 358	30.05	218.40	
		slip	0.8
		24.2	458
46.82	00	3.	27
			17.7
			12.0
625	53.83	5.7	
		19.4	218
		74.3	549.4

Sta	Grade.	L	C	R
314+75		$\frac{+5.6}{9.4}$	$+3.3 \frac{0.0}{5.0}$	$-\frac{5.0}{14.5}$
315+04	04848.27			
315+05		$\frac{+6.1}{9.5}$	$+2.4$	$\frac{0.0}{8.0}$
+35		$\frac{+6.8}{9.7}$	$+4.2$	$\frac{0.0}{8.0}$
+60		$\frac{+2.3}{8.6}$	00	$-\frac{5.5}{15.3}$
+75		$\frac{+4.8}{9.2}$	$+1.8$	$\frac{0.0}{8.0}$
+85		$\frac{+7.4}{9.9}$	$+3.5$	$\frac{+8.6}{8.2}$
315+90		$\frac{+7.5}{9.9}$	$+3.4$	$\frac{0.0}{8.0}$
316+15		$\frac{+5.8}{9.5}$	$+1.7 \frac{0.0}{3.0}$	$-\frac{4.0}{13.0}$
+25		$\frac{+7.3}{9.8}$	$+3.1$	$\frac{0.0}{8.0}$
316+35		$\frac{+8.8}{10.2}$	$+4.5$	$\frac{+1.9}{8.5}$

-216-

Areas.

Cub. Yds.

Exc. Emb. Exc. Emb.

74.3

549.4

46.16

5.00

S.

3.6
50.9

1.8

45.40

00

S.

3.7
610

Sta 3/3+60 to 3/6+25

64.37

00

S.

1.3
34.1

Emb 564.1 cu.

5.9 made from cuts

9.20

19.25

S.

0.8
12.2

3.6

560.7 ✓

34.68

00

S.

1.5
24.1

95.68

S.

1.3
12.6

40.43

00

S.

11.1
34.4

2.4

33.83

8.00

S.

1.0
16.8

1.0

56.79

00

S.

5.6
26.2

3.4 ✓

84.88

S.

8.4
49.1

434.0 ✓

Section - 6

Sta	Grade.	L	C.	R
316+50		+9.9 10.5	+5.0	+1.3 8.4
+60	-294	+7.2 9.8	+4.9	+3.6 8.9
+80		+10.0 10.5	+4.8	+3.0 8.8
+92	04842.72			
317	-322	+2.6 8.7	00.	00 8.0

Clearing on Section 6

Stations	Width	Square Feet
271 to 279	60'	48000
279 - 290	50	55000
290 - 298	60	48000
298 - 301	70	21000
301 - 303	80	16000
303 - 311	65	52000
311 - 315	55	22000
315 - 317	165	33000
		295000 = 6.77 Acres.

Station 291+05 to 291+25 Slope Wall

$$3.5 \times 3.5 \times 20 = 9.0 \text{ Cub. Yds.}$$

Areas. Cub. Yds.
Exc. Emb. Exc. Emb.

92.05

S.

1.1

Sta 314+17 to 317 Exc 713.0 cu.

33.5 Class Slip Loose Rock 65.0 cu.

89.02

S.

7.7

Balance Cut Solid 648.0 "

69.4 Haul 177.7 So free

98.32

S.

8.7

40.3 " 405 from 316+35 to 320+15 = 1539

104.0

0.0

594.7
118.3 = 08.59.

713.0 ✓

1616

Cart Road - around Cut Sta 281+30 to 284

S/S

L

R

Areas

Exc. Cu.Y.

281+30 = 0

0.0

0.0

0.0

6.7

+50

0.0

+1.0 +0.8
2.0 8.0

0.0

10.0

7.20

10.2

+75

0.0

+2.2 +2.8 +1.0
2.0 6.0 8.0

0.0

10.0

17.00

16.7

1

0.0

+2.0 +3.0 +1.5
1.0 4.0 8.0

0.0

10.0

19.00

17.8

+75

0.0

+2.0 2.7 2.0
1.0 5.0 8.0

0.0

10.0

19.65

15.3

+50

0.0

+1.5 +2.0 +0.6
1.0 6.0 9.0

0.0

10.0

13.70

25.6

2

0.0

+1.8 +1.5
1.0 8.0

0.0

10.0

13.95

11.3

+25

0.0

+1.5 +1.0
1.0 8.0

0.0

10.0

10.50

11.2

+50

0.0

+1.6 +1.6
1.0 8.0

0.0

10.0

13.60

5.0

+70

0.0

0.0

2.0

119.8 S.R.

Section 6

Cart Stations	Road around		Cut 292+40-295+05	
	L	R	Areas	Cu. Yds.
292+40=0	0.0	0.0	0.0	
		+1.9		1.6
+20	0.0	1.0	6.65	7.6
		+2.8		
+45	0.0	1.0	9.80	17.2
		+4.2		
+80	0.0	1.0	16.80	17.0
		+4.6		
1+10	0.0	1.0	13.80	7.0
		+6.0		
+20	0.0	2.0	24.00	9.8
		+6.5		
+30	0.0	1.0	29.25	16.8
		+5.4		
+50	0.0	1.0	16.20	16.3
		+3.0		
+85	0.0	1.5	9.00	6.2
		+4.5		
2	0.0	1.0	13.50	22.5
		+2.7		
+50	0.0	1.0	10.80	2.0
295+05= +65	0.0		0.0	124.0 S.R.

Excavate for Station (at Saddle

273+46				
= 0	0.0	0.0	0.0	
		+3.2		5.8
+15	0.0	1.5	13.0	20.80
		+3.5		9.9
+27	0.0	1.0	13.6	23.80
		+2.0		9.8
+49	0.0	1.0	11.50	0.2
273+03= +43	0.0	0.0		25.7 C.Y. S.R.

Section 6

22

SPUR AT SADDLE ~ STA 274 = 0

95+05

Stations	Areas			Cut	Fill	Cub. Yds.	
	L	C	R			Exc.	Emb.
0+65	$\frac{0.0}{6.0}$	0.0		0.0		0.6	
+75	$\frac{+3.0 + 26.00}{6.8 \ 5.0 \ 46.00}$			5.4		4.4	
+90	$\frac{+3.0 + 32.00}{6.8 \ 4.0 \ 20}$			10.68		5.9	
1 = 82.13	$\frac{0.0}{6.0}$	0.0	$\frac{0.0}{6.0}$	0.0		5.7	
+50	$\frac{+1.0}{5.3}$	$\frac{+1.0}{5.3}$		9.24		27.0	
2	$\frac{+2.0}{5.5}$	$\frac{+2.0}{5.5}$		19.90		18.6	
+50	$\frac{0.0}{5.0}$	$\frac{0.0}{4.0}$	$\frac{+0.4}{5.1}$	0.20	0.0	0.4	0.5
+70	$\frac{-0.2}{5.3}$	$\frac{0.0}{2.0}$	$\frac{+0.6}{5.2}$	0.90	1.23	3.0	2.4
3	$\frac{-0.8}{6.2}$	$\frac{0.0 + 2.2}{1.0 \ 5.6}$		4.40	3.08	4.5	1.3
+15	$\frac{-1.0}{6.5}$	$\frac{0.0}{2.0}$	$\frac{+2.4}{5.6}$	11.70	1.50	1.5	4.8
+25	$\frac{-2.6}{8.9}$	$\frac{0.0}{5.0}$		0.0	24.57	0.7	14.0
+50	$\frac{-2.2}{8.3}$	$\frac{+0.9}{5.3}$		2.25	5.50	0.9	8.2
+75	$\frac{-2.2}{8.3}$	$\frac{0.0}{5.0}$		0.0	12.15	3.5	3.7
4	$\frac{0.0}{5.0}$	$\frac{+2.0}{5.5}$		11.30	0.0	8.6	34.91
End	$\frac{+2.4}{5.6}$	$\frac{+3.2}{5.8}$		31.10		84.5	

Class Exc 84.5 Solid Rock

Alignment

2+70 P.T.
15° 0'
1+20 P.C. 10° R
0+85 P.T.
1° 16'

274+87 = 0 P.R.C. 1° 30' L

S.R

Section 6

PAGES	Acres Clearing	Excavation ~ Cub. Yds.			
		Total	Earth	L. Rock	S. Rock
2		2101.3		268.9	1832.4
4		47.8			47.8
5		13412.9		1620.3	11792.6
8					
9					
10		3503.8		100.0	3403.8
11					
12		6083.0			6083.0
14		5587.0			5587.0
15		2533.7			2533.7
17		3160.4		41.9	3118.5
18					
20					
21	6.77	413.0		65.0	648.0
21		119.8			119.8
22		234.2			234.2
		677	37496.9	2096.1	35400.8

Summary

Cu. Yds	Cu. Yds	Borrow-Cu. Yds.	Cu. Yds	Cub. Yds
Total in Banks	Banks made	Lease Earth	Haul 100' Slope	Wall
	from Cuts	Rock		
4232.5	4232.5		9842	
12.1	12.1		11355	
1885.4	1885.4			
709.1	709.1			
			7125	
3943.5	3943.5			
			19761	
16681.9	16681.9		8546	
			3743	
7976.7	7976.7		8664	
3020.1	3020.1			
		31.1		
31.1				
532	532			
564.1	564.1			
			1539	9.0
39109.7	39078.6		31.1	17277
				9.0

SECTION 6 COST

CLEARING	6.77 ACRES @	\$35.00	236.95
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EXCAVATION L. ROCK	2096.1 CU. YDS	0.45	943.24
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" S. ROCK	35400.8 "	0.90	31860.72
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BORROW L. ROCK	31.1 "	0.40	12.44
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HAUL 100 FT.	17277.2 "	0.015	2591.58
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SLOPE WALL	90 "	2.00	18.00
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✓ 35662.93

16/11/16

236.95

943.24

1860.72

12.44

2591.56

18.00

5662.98

Section ~ 7

Sta	Grade.	L	P.	R
317		$\frac{+26}{8.7}$	00	$\frac{00}{8.0}$
+10		$\frac{+2.1}{8.5}$	$\frac{00}{5.0} - 1.0$	$\frac{-7.2}{17.8}$
+15		$\frac{+5.6}{9.4}$	+1.5	$\frac{00}{8.0}$
+20		$\frac{+6.6}{9.7}$	+5.6	$\frac{+2.8}{8.7}$
+25	-322	$\frac{+1.7}{8.4}$	+4.0	$\frac{00}{8.0}$
+35		$\frac{+3.8}{9.0}$	$\frac{00}{1.0} - 1.2$	$\frac{-4.2}{13.3}$
+50		$\frac{+2.1}{8.5}$	00	$\frac{-5.2}{14.2}$
+75		$\frac{+3.2}{8.8}$	00	$\frac{-7.1}{16.7}$
318		$\frac{+3.5}{8.9}$	$\frac{00}{1.0} + 0.6$	$\frac{-3.5}{12.2}$
+100 ⁸	○ 4839.24			
318 + 20		$\frac{+4.4}{9.1}$	$\frac{00}{2.0} + 1.0$	$\frac{-2.0}{9.0} - 7.2$ $\frac{-7.2}{16.9}$

Areas.		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.
10.40	00		
		slip 2.1	
		2.5	6.8
			Emb. 90' Ch. made
3.15	36.60		from Cut
		s. 1.7	
		3.6	22
			9.0 ✓
35.45	00		
		s. 1.5	
		11.5	Sta 317 to 319 + 5
89.12			Exc 407.4 Ch. ✓
			class Slips Lo. Rock 40.6 "
		s. 0.4	
		11.9	Balance Cut Solid " 366.8 "
			Haul 210.6 n + alongside for
39.60	00		" 100 from 317 + 5 to 320 + 5 = 260 ✓
		s. 0.5	
		9.8	2.8
13.30	22.28		
		s. 1.1	
		6.0	112
8.40	18.20		
		s. 1.0	
		5.9	199
12.80	24.85		
		s. 0.7	
		13.8	16.4
16.97	10.50		
		s. 0.9	
		14.9	6.7
23.15	77.05		
		s. 0.7	
		11.4	3.3
		101.9 ✓	60.3 ✓

slip

Sta	Grade.	L	C	R
318+30		$\frac{+54}{94}$	$+27 \frac{00}{30}$	$-\frac{50}{139}$
+50		$\frac{+6.8}{9.7}$	$+22 \frac{00}{40}$	$-\frac{0.8}{82}$
+75		$\frac{+5.5}{94}$	$+12 \frac{00}{20}$	$-\frac{54}{145}$
319		$\frac{+90}{10.3}$	$+43$	$\frac{00}{80}$
+10		$\frac{+8.2}{10.1}$	$+44$	$\frac{00}{80}$
+30		$\frac{+4.1}{9.0}$	$+06 \frac{00}{20}$	$-\frac{94}{199}$
+55		$\frac{00}{8.0}$	-28	$-\frac{122}{238}$
320		$\frac{-40}{12.5}$	-84	$-\frac{154}{282}$
+50		$\frac{-5.2}{14.2}$	-8.5	$-\frac{134}{255}$
320+75		$\frac{-53}{14.4}$	-80	$-\frac{86}{188}$

-350

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
3834	10.00	101.9	60.3
		5.6	
		299	4.1
4227	1.20	8.0	
		329	68
2884	13.50	52	
		48.2	42
75.35	00		75.4 ✓
		12	
		27.4	
72.62	00	10.0	
		34.2	58
19.70	23.50		
		6.1	51.3
		310.6	
00	8722	96.8	sc.
		407.4	271.7
	238.84		
			4376
	233.83		
			1922
	181.45		112.1
			1090.7

Sta 317+25 to 319

Emb 75.4 cu. ✓

made from cut

was

26

Sta.	Grade.	L	C	R
321		$\frac{-2.7}{11.0}$	-3.2	$\frac{-3.8}{12.7}$

+15		$\frac{0.0}{8.0}$	-0.7	$\frac{-1.8}{9.7}$
-----	--	-------------------	------	--------------------

+30	-3.5°	$\frac{+2.2}{8.6}$	+0.8	$\frac{0.0}{8.0}$
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+50		$\frac{+4.7}{9.2}$	+4.2	$\frac{+2.6}{8.7}$
-----	--	--------------------	------	--------------------

+64 ○ 4826.53

+75		$\frac{16.6}{9.7}$	+5.5	$\frac{+4.3}{9.1}$ RB 80 0.7 R
-----	--	--------------------	------	-----------------------------------

322 = 324 + 46 Back Up		$\frac{+5.3}{9.4}$	+3.8	$\frac{+1.6}{9.0}$ 9.0
------------------------	--	--------------------	------	------------------------

322 Go Ahead		$\frac{+5.3}{9.4}$	+3.8	$\frac{0.0}{26.0}$ 26.0
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Boulders 20x80x80
40x50x70 = 9.7

+25	TEL	$\frac{+4.2}{9.1}$	+3.5	$\frac{0.0}{22.0}$ 22.0
-----	-----	--------------------	------	-------------------------

+40	00	$\frac{0.0}{8.0}$	00	$\frac{-5.2}{24.4}$ 17.0
-----	----	-------------------	----	--------------------------

322 + 60		$\frac{-1.7}{9.5}$	-3.2	$\frac{-4.6}{19.3}$ 13.0
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Areas.		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.
	60.67	1070.7	Sta 319+10 to 321+30
		20.3	Emb 1093.3 Cy. ✓
00	12.50		1023.3 made from cuts
		2.9	2.3 balance from Pit on L
15.44	00	1093.3	Sta 319+40 Class
		30.5	Brown 70.0 Cy. Lo Rock
66.79			
		75.0	
80 R	95.30		Sta 321+15 to 322+40 Exc
		73.5	331.0 Cy. Solid Rock
0	63.36		Haul 115.3 So. for
			" 170 from 322+05 to 322+70 = 230. ✓
0	88.46		
		9.7	
		73.9	
2.0	71.23	00	
		19.8	8.2 Sta 322+20 to 322+77
7.0	00	44.20	285.3 Emb 89.8 Cy. made
		45.7	125.4
		331.0	46.7 from Cut North
13.0	81.93		
		23.8	
		78.7	

J. H.

Sta	Grade	L	C	R
322	+70	$\frac{-1.0}{8.5}$	-2.0	$\frac{-3.4}{16.1}$ R.B. 11.0 on R
	+77 H.B.	$\frac{-0.3}{7.5}$	-1.3	$\frac{-3.0 - 7.7}{20.4}$ R.B. 10.5 on R

323	+08 H.B.	$\frac{-3.0}{11.1}$	-7.0	$\frac{-4.0}{13.5}$ R.B. 8.0 on R
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323	+20	$\frac{0.0}{8.0}$	0.0	$\frac{0.0}{8.0}$
-----	-----	-------------------	-----	-------------------

+23 O 4826.53

+35	$\frac{+6.1}{9.5}$	+6.5	$\frac{+8.4}{10.1}$
-----	--------------------	------	---------------------

00

+60	$\frac{+10.4}{10.6}$	+12.5	$\frac{+15.0}{11.8}$
-----	----------------------	-------	----------------------

+73 O 4826.53

323	+80	$\frac{+16.2}{12.1}$	+19.2	$\frac{+21.3}{13.3}$
-----	-----	----------------------	-------	----------------------

324	+10	$\frac{+23.4}{13.9}$	+24.4	$\frac{+23.4}{13.9}$
-----	-----	----------------------	-------	----------------------

+2.00

324	+20	$\frac{+25.4}{14.4}$	+23.8	$\frac{+22.5}{13.6}$
-----	-----	----------------------	-------	----------------------

Areas. Cub. yds.
Exc. Emb. Exc. Emb.

46.80

78.7

11.1

89.8

38.93

51.10

Sta 323+08 to 323+20

11.3 Emb 11.3 Cy. made

11.3 from Out.

00

00

slip

25

33.8

121.70

s.

55

168.2 Class Slips Loose Rock 487.7

241.60

s.

12.0

235.4 Haul 100 So far

393.84

s.

83.8

1 230.2 N. "

511.2

85 from 323+50 to 320+50 = 255

526.36

s.

47.8

194.7 1990 324+55 to 326+10 = 368.2

Total haul 4503

524.80

s.

107.3

359.1

1756.3

www

60%

Sta	Grade.	L	C	R
324 + 40		$\frac{+23.8}{14.0}$	+21.0	$\frac{+17.8}{12.5}$
+60		$\frac{+17.1}{12.3}$	+14.2	$\frac{+11.0}{10.8}$
+75		$\frac{+12.6}{11.2}$	+8.6	$\frac{+5.2}{9.3}$
324 + 95		$\frac{+7.0}{9.8}$	+2.4	$\frac{0.0}{8.0}$
325 + 15		$\frac{+4.6}{9.2}$	+0.3	$\frac{0.0}{1.0} - \frac{6.2}{15.6}$
+40	+2.00	$\frac{+8.0}{7.0}$	+2.7	$\frac{0.0}{8.0}$
+50		$\frac{+6.0}{9.5}$	+1.1	$\frac{0.0}{3.0} - \frac{4.7}{13.4}$
+70		$\frac{0.0}{8.0}$	-4.4	$\frac{-53.0}{80.0}$
325 + 90		$\frac{-3.6}{12.4}$	-8.8	$\frac{-6.96}{102.8}$
326 + 23		$\frac{-8.4}{18.6}$	-16.4	$\frac{-53.0}{80.0}$

Areas.		Cib. yds.	
Exc.	Emb.	Exc.	Emb.
444.65		1756.3	
		S. 1136	
		267.1	
276.41		S. 56.1	
		121.0	
159.35		S. 35.1	
		77.3	
49.36	00	S. 9.1	
		25.7	46
19.93	186.0	S. 10.9	
		35.3	5.7
56.30	00	S. 5.3	
		16.1	2.3
30.88	9.40	S. 3.7	
		7.6	143.9
		2540.2	
00	379.10	133.9	54.
		2674.1	
		423.0	
	763.08		
		1091.7	
	1023.43		
		611.5	
		2282.7	

Sta	Grade.	L	C.	R
326+45		$\begin{array}{r} -6.8 \\ 16.4 \end{array}$	-10.8	$\begin{array}{r} -30.0 \\ 48.2 \end{array}$
+70		$\begin{array}{r} 0.0 \\ 8.0 \end{array}$	-1.7	$\begin{array}{r} -4.5 \\ 13.2 \end{array}$
+80	+2.00	$\begin{array}{r} +5.8 \\ 9.5 \end{array}$	+2.0	$\begin{array}{r} 0.0 \\ 8.0 \end{array}$
326+90		$\begin{array}{r} +10.6 \\ 10.7 \end{array}$	+5.7	$\begin{array}{r} +1.8 \\ 8.5 \end{array}$
327+20		$\begin{array}{r} +14.6 \\ 11.7 \end{array}$	+1.5	$\begin{array}{r} +8.8 \\ 10.2 \end{array}$
+30		$\begin{array}{r} +16.8 \\ 12.2 \end{array}$	+13.6	$\begin{array}{r} +11.0 \\ 10.8 \end{array}$

End Tail

Areas		Cub. yds.	
Exc	Emb.	Exc	Emb.
	477.64	2282.7	Sta 324+95 to 326+80
		236.7	Emb 2523.6 C.Y.
00	33.77	made from cuts	
		5.0	42
40.70	00	2523.6	
		26.8	
104.32		Sta 326+70 to 327+30	
		179.9	Exc. 301.9 C.Y. Solid Rock
219.52		Haul North free	
		90.2	
267.60		301.9	

Clearing on Section 7

Station to Station		Width	Sq. Ft.
317	324	105'	73500
324	328+85	65'	31525
331+50	339	60	45000
339	354	65	97500
354	356	80	16000
356	364	90	72000
364	367	100	30000
			365525 = 8.39 Acres

Sta	Grade.	L	C	R	
322 Go Ahead=		$\frac{00}{8.0}$		$\frac{+16}{9.0}$	RB 90
324+46 Back Up = 324+40 Ford			+0.9		on R
Back					

+50	00	$\frac{00}{8.0}$	+14	$\frac{+38}{9.0}$	$\frac{00}{10.0}$	10.0
	00					

+75		$\frac{00}{8.0}$	+1.5	$\frac{+5.0}{9.3}$		
+76	04826.53					

325	10110	$\frac{00}{8.0}$	+1.6	$\frac{+3.5}{8.9}$		
	-2.39					

+15		$\frac{00}{8.0}$	+1.0	$\frac{+2.0}{8.5}$		
+27	04825.31					

+35		$\frac{-0.9}{8.3}$	$\frac{0.0}{1.0}$	+0.2	$\frac{+1.0}{8.3}$	
-----	--	--------------------	-------------------	------	--------------------	--

Boulder 2.0 x 3.0 x 7.0 = 1.5

+50		$\frac{-1.4}{9.1}$	-0.8	$\frac{0.0}{8.0}$		
-----	--	--------------------	------	-------------------	--	--

+75	-3.03	$\frac{-5.4}{14.4}$	-4.2	$\frac{-3.6}{11.0}$	$\frac{-3.0}{11.5}$	
-----	-------	---------------------	------	---------------------	---------------------	--

326		$\frac{-8.4}{18.6}$	-6.7	$\frac{-6.2}{5.0}$	$\frac{-2.3}{10.5}$	
-----	--	---------------------	------	--------------------	---------------------	--

326+25		$\frac{-10.0}{20.8}$	-6.4	$\frac{-5.5}{7.0}$	$\frac{-2.7}{11.0}$	
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Areas.		Cub. Yds.	
Exc	Emb.	Exc	Emb.
14.85	00	Sta 324+46 to 325+50	
		8.5 Exc. 88.4 Cy. Solid Rock	
30.90		Haul 48.4 N. yr	
		29.6 " Ho from 324+60 to 325+80-48	
32.98			
		28.0	
27.52			
		12.1	
16.25	00		
		7.8	1.0
4.93	2.70	Sta 325+15 to 327+25	
		1.5	
		.09	4.0 Emb. 982.3 Cy.
00	11.74	88.4	made from Cuts.
		45.7	
	86.94		
		106.6	
	143.31		
		137.7	
	154.21	154.6	
		44.96	

866

Sta	Grade	L	C	R
326+50		$\begin{array}{r} -114 \\ 227 \end{array}$	$\begin{array}{r} -55 \\ 75 \end{array}$	$\begin{array}{r} -25 \\ 66 \\ 107 \end{array}$

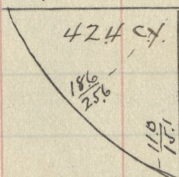
+75		$\begin{array}{r} -140 \\ 26.3 \end{array}$	$\begin{array}{r} -3.0 \\ 6.3 \end{array}$	$\begin{array}{r} -22 \\ 9.0 \\ 103 \end{array}$
-----	--	---	--	--

+90		$\begin{array}{r} -206 \\ 35.4 \end{array}$	$\begin{array}{r} -5.2 \\ 9.0 \end{array}$	$\begin{array}{r} -13 \\ 9.0 \end{array}$
-----	--	---	--	---

327		$\begin{array}{r} -294 \\ 47.4 \end{array}$	$\begin{array}{r} -5.0 \\ 8.0 \end{array}$	
-----	--	---	--	--

+20	-3.03	$\begin{array}{r} -304 \\ 48.6 \end{array}$	$\begin{array}{r} -196 \\ 32.0 \end{array}$	$\begin{array}{r} 00 \\ 3.0 \\ 91 \end{array}$
-----	-------	---	---	--

+25	Back	$\begin{array}{r} -304 \\ 48.6 \end{array}$	$\begin{array}{r} -200 \\ 32.0 \end{array}$	$\begin{array}{r} -6.0 \\ 8.0 \\ 1.0 \end{array}$
-----	------	---	---	---



+25	Ford	$\begin{array}{r} 00 \\ 8.0 \end{array}$	$\begin{array}{r} +5.2 \\ 2.0 \end{array}$	$\begin{array}{r} +9.3 \\ 9.3 \end{array}$
-----	------	--	--	--

+30		$\begin{array}{r} +3.5 \\ 8.9 \end{array}$	$\begin{array}{r} +9.3 \\ 8.0 \end{array}$	$\begin{array}{r} +9.3 \\ 5.0 \\ 4.0 \\ 4.0 \end{array}$	$\begin{array}{r} +7.0 \\ 9.8 \end{array}$
-----	--	--	--	--	--

327+40		$\begin{array}{r} +9.0 \\ 10.3 \end{array}$	$\begin{array}{r} +9.0 \\ 9.0 \end{array}$	$\begin{array}{r} +6.2 \\ 6.0 \\ 16.8 \end{array}$	$\begin{array}{r} +9.2 \\ 10.3 \end{array}$
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Areas. Cb. yds.
Exc. Emb. Exc Emb.

179.70

449.6

163.5

173.45

101.5

192.09

803

00 241.40

28 125.1

1125 96.28

45 199

119.00

424

987.3

38.10

132

104.84

44.4

134.97

39.8

104.7

Sta	Grade.	L.	C.	R.
327+50		$\frac{+1.8}{8.5}$	+4.6	$\frac{+7.6}{9.9}$

+60		$\frac{0.0}{8.0}$	+4.2	$\frac{+8.0}{10.0}$
-----	--	-------------------	------	---------------------

-3.03

+70		$\frac{-7.4}{17.2}$	$\frac{0.0}{5.0} + 2.5$	$\frac{+6.6}{9.7}$
-----	--	---------------------	-------------------------	--------------------

+80		$\frac{-6.0}{15.3}$	$\frac{0.0}{3.0} + 1.2$	$\frac{+6.5}{9.6}$
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+847 04817.52

327+95		$\frac{0.0}{8.0}$	+5.0	$\frac{+11.2}{10.8}$
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328+05		$\frac{0.0}{8.0}$	+3.4	$\frac{+8.0}{5.0} \frac{+11.0}{10.8}$
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+15		$\frac{+1.7}{8.4}$	$\frac{+5.5}{3.0} + 5.6$	$\frac{+6.6}{6.0} \frac{+11.0}{10.8}$
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-270

+25		$\frac{0.0}{8.0}$	+2.2	$\frac{+4.8}{9.2}$
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+40		$\frac{-5.4}{14.5}$	$\frac{0.0}{1.0} + 0.5$	$\frac{+6.2}{9.6}$
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328+55		$\frac{-5.4}{14.5}$	$\frac{0.0}{3.0} + 1.0$	$\frac{+5.4}{9.4}$
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Areas		Cub. Yds.	
Exc.	Emb.	Exc.	Emb.
7992		104.7	
		27.7	
6980	00	21.2	1.4 Sta 327+60 to 327+95
44.78	11.10		Emb. 7.7 C.Y. made
		14.5	4.1 from cuts
33.56	12.00		
		34.8	2.2
91.80	00	7.7	
81.80		32.1	Sta 327 to 331+20 Exc 103 1/2 C.Y. S.R.
			Haul 198.9 So far
		33.5	" 104 ft along side from
99.19			" 470 from 328+90 to 326+60 = 1081
		25.4	" 170 329+60 to 331+50 = 323
38.12	00		Total Haul 1404
		18.2	3.0
27.45	16.20		
		15.3	7.5
27.80	10.80	18.6	1.3
		346.0	11.8

Sta	Grade	L	C	R
328+65		$\frac{00}{8.0}$	+4.8	$\frac{+7.4}{9.9}$
+74.7	4815.09			
+75		$\frac{+3.0}{8.8}$	$\frac{+6.7}{4.0} + 6.7$	$\frac{+9.6}{10.4}$
+90		$\frac{+4.9}{9.2}$	+8.0	$\frac{+12.8}{11.2}$
329		$\frac{+4.6}{9.2}$	+10.0	$\frac{+14.0}{11.5}$
+10		$\frac{+4.0}{9.0}$	+5.8	$\frac{+12.0}{11.0}$
+25		$\frac{+1.0}{8.3}$	+3.2	$\frac{+5.4}{9.4}$
+50	-2.39	$\frac{+4.4}{9.1}$	+8.0	$\frac{+10.0}{10.5}$
+75		$\frac{+4.5}{9.1}$	+6.2	$\frac{+9.5}{10.4}$
329+85		$\frac{+4.3}{9.1}$	+6.2	$\frac{+6.7}{9.7}$
330+05		$\frac{00}{8.0}$	+0.9	$\frac{+2.9}{8.7}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
72.26	00	346.0	
		36.0	
122.12			
		76.2	
152.40			
		61.2	
177.90			
		55.3	
122.00			
		48.9	
53.92			
		87.9	
136.00			
		116.9	
116.45			
		40.5	
102.28			
		45.0	
19.12	00	4.1	
		918.0	

1616

Sta	Grade.	L	C	R
330+15		$\frac{-4.7}{13.4}$	$-23 \frac{00}{6.0}$	$\frac{+1.3}{8.3}$
330+35		$\frac{-8.0}{18.0}$	-2.5	$\frac{00}{8.0}$
+50		$\frac{-2.4}{10.6}$	$-1.0 \frac{00}{4.0}$	$\frac{+2.0}{8.5}$
+75		$\frac{-4.1}{12.6}$	$-1.1 \frac{00}{7.0}$	$\frac{+3.0}{8.8}$
331	-2.39	$\frac{00}{8.0}$	$+0.9$	$\frac{+2.4}{8.6}$
+20		$\frac{-5.6}{14.7}$	-2.0	$\frac{00}{8.0}$
+30		$\frac{-7.6}{17.5}$	-3.6	$\frac{-3.0}{11.5}$
+50		$\frac{-13.7}{25.8}$	-6.0	$\frac{-2.0}{10.0}$
+75		$\frac{-23.6}{39.4}$	$-20.0 \frac{-11.8}{30.0} \frac{-7.0}{21.0}$	$\frac{-5.6}{14.7}$
331+85		$\frac{-23.4}{39.2}$	$\frac{-13.0}{23.0} -7.4$	$\frac{-3.2}{11.6}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

195	3761	918.0	46
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		05	363
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00	6050		
----	------	--	--

		07	212
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400	1570		
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		6.7	174
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1050	2183		
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		12.8	6.7
--	--	------	-----

17.07	00		
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		42	10.4
--	--	----	------

00	4230	942.9	
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		91.3	54.
		1034.2	244

8930

93.2

16235

1836

23415

81.7

20682

65.2
544.7

MM

1616

Sta Grade. L C R

332

$$\begin{array}{r} -3.4 \\ \hline 12.1 \end{array} \quad -16 \quad \begin{array}{r} 00 \\ \hline 8.0 \end{array}$$

Boulders $\begin{array}{l} 8.0 \times 8.0 \times 10.0 \\ 4.0 \times 4.0 \times 4.0 \\ 3.0 \times 6.0 \times 8.0 \end{array} = 31.4$

+05

$$\begin{array}{r} 00 \\ \hline 8.0 \end{array} \quad +13 \quad \begin{array}{r} +22 \\ \hline 8.6 \end{array}$$

+20

2.39

$$\begin{array}{r} +16 \\ \hline 8.4 \end{array} \quad +43 \quad \begin{array}{r} +54 \\ \hline 9.4 \end{array}$$

+30

$$\begin{array}{r} +14 \\ \hline 8.4 \end{array} \quad +32 \quad \begin{array}{r} +40 \\ \hline 9.0 \end{array}$$

+35

$$\begin{array}{r} 00 \\ \hline 8.0 \end{array} \quad +18 \quad \begin{array}{r} +38 \\ \hline 9.0 \end{array}$$

+50

$$\begin{array}{r} -5.6 \\ \hline 14.7 \end{array} \quad \begin{array}{r} 00 + 3.6 \\ -3.5 \end{array} \quad \begin{array}{r} 3.0 \\ 6.0 \end{array} \quad \begin{array}{r} +3.6 \\ \hline 8.9 \end{array}$$

+60 $\circ$ 4805.87

+65

$$\begin{array}{r} -7.6 \\ \hline 17.5 \end{array} \quad \begin{array}{r} -4.0 \\ 4.6 \end{array} \quad \begin{array}{r} 00 \\ 3.0 \end{array} \quad \begin{array}{r} +1.6 \\ \hline 8.4 \end{array}$$

+80

-2.70

$$\begin{array}{r} -12.4 \\ \hline 24.1 \end{array} \quad \begin{array}{r} -9.6 \\ \hline 9.0 \end{array} \quad -28 \quad \begin{array}{r} 00 \\ 4.0 \end{array} \quad \begin{array}{r} +1.8 \\ \hline 8.5 \end{array}$$

332+90

$$\begin{array}{r} -15.4 \\ \hline 28.2 \end{array} \quad -4.7 \quad \begin{array}{r} 00 \\ 1.0 \end{array} \quad \begin{array}{r} +3.6 \\ \hline 8.9 \end{array}$$

333+10

$$\begin{array}{r} -14.4 \\ \hline 26.8 \end{array} \quad \begin{array}{r} -10.8 \\ \hline 8.0 \end{array} \quad -2.8 \quad \begin{array}{r} +2.0 \\ \hline 8.6 \end{array}$$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
00	27.98	544.7	Sta 330+05 to 332+05
		31.4	
		1.2	1.6 Emb 546.3 Cy, made
19.59	00	546.3	from cuts.
		23.8	
66.27			Sta 332+05 to 333+20
		21.4	Exc 125.3 Cy. Solid Rock
49.44			<u>Haul alongside pwr</u>
		7.4	
30.50	00		
		12.4	9.4
14.22	50.58		
		4.6	37.3
2.40	83.75		
		1.7	57.0
3.60	121.48		
		3.0	45.2
12.60	122.52		
		7.6	90.5
8.00	121.72	1.0	52.3
		115.5	291.7
Side Ditch on R		9.8	
		125.3	

Sta Grade. L C R

333+20

$\frac{-17.2}{30.7}$ -5.2 $\frac{00}{8.0}$

Boulder 3.0 x 4.0 x 6.0 = 27

+30

-2.70

$\frac{-14.4}{26.8}$ -1.3 $\frac{00}{1.0}$ +5.0
9.3

+40

$\frac{00}{8.0}$ +4.2 6.0 +5.6 +9.6
10.4

+50⁵ ○ 4803.44

+60

-3.03

$\frac{+3.0}{8.9}$ +7.6 $\frac{+13.6}{11.4}$

+80 ○ 4802.27

$\frac{+6.8}{9.7}$ +9.8 $\frac{+14.6}{11.7}$

+89

Boulders $\frac{5.0 \times 6.0 \times 9.0}{3.0 \times 3.0 \times 5.0} = 14.6$
 $\frac{2.0 \times 4.0 \times 10.0}{}$

333+90

$\frac{+5.2}{9.3}$ +9.3 $\frac{+14.6}{11.7}$

334+05

$\frac{+4.4}{9.1}$ +8.8 $\frac{+11.6}{10.9}$

+10

-2.76

$\frac{00}{8.0}$ +3.4 $\frac{+6.0}{4.0}$ +19.0
12.8

+20

$\frac{-6.6}{16.1}$ $\frac{00}{3.0}$ +2.2 $\frac{+26.8}{8.0}$ +30.6
15.7

334+35

$\frac{00}{8.0}$ +5.6 $\frac{+14.0}{11.5}$

Areas.		Cub. fds.	
Exc.	Emb.	Exc.	Emb.
00	16082	27	291.7 Sta 332+35 to 333+40
		22	42.5 Emb 342.7 Cy.
17.50	6847		made from Cuts.
		22.0	8.5
101.12	00		342.7
		S/p	13.2
			91.2
145.14		S.	17.1
			124.3
190.46		S.	75
			146
			680
176.85		S.	238
			91.3
152.00		S.	20.0
			230
96.80	00	S.	54.9
			59.1
			16 Sta 334+10 to 334+35
222.48	13.20		Emb to made from
		S.	47.2
			92.5
			2.4 Cut
110.60	00	S.	33.5
			107.6
			91.57
			4.0

Sta	Grade.	L	C	R
334+50		$\frac{+11.0}{10.8}$	$+12.8$	$\frac{+15.6}{8.0} + \frac{+25.1}{14.4}$

+60		$\frac{+6.1}{9.5}$	$+14.5$	$\frac{+22.6}{13.7}$
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-270

+70		$\frac{+5.4}{9.4}$	$+12.8$	$\frac{+25.0}{5.0} + \frac{+28.4}{15.1}$
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+79 4799.84

+85		$\frac{+13.4}{11.4}$	$\frac{+13.1}{3.0} + 16.2$	$\frac{+23.4}{9.0} + \frac{+24.8}{14.2}$
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335		$\frac{+7.2}{9.8}$	$+14.0$	$\frac{+21.6}{13.3}$
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+35		$\frac{+7.4}{9.9}$	$+13.6$	$\frac{+21.8}{13.5}$
-----	--	--------------------	---------	----------------------

+50		$\frac{+9.4}{10.4}$	$+13.8$	$\frac{+23.5}{13.9}$
-----	--	---------------------	---------	----------------------

-239

+60		$\frac{+10.5}{10.6}$	$+17.0$	$\frac{+24.2}{14.1}$
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+80		$\frac{+18.1}{12.5}$	$+21.4$	$\frac{+26.2}{14.6}$
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336		$\frac{+14.8}{11.7}$	$+20.0$	$\frac{+24.8}{14.2}$
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Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
276.64		915.7	
	S.	47.6	
		1036	
283.00			
	S.	36.9	
		116.3	
345.11			
	S.	29.6	
		195.6	
359.11			
	S.	12.7	
		176.0	
274.50			
	S.	7.3	
		356.7	
275.92			
	S.	9.2	
		159.8	
299.27			
	S.	13.6	
		120.0	
348.75			
	S.	35.6	
		302.2	
467.17			
	S.	74.2	
		327.6	
417.40			
	S.	53.6	
		144.4	
		3238.2	

Wad

Sta	Grade.	L	C	R
336 + 10		$\frac{+12.2}{11.1}$	$\frac{+17.8}{13.8}$	$\frac{+23.0}{13.8}$
		Boulders. $\frac{3.0 \times 6.0 \times 8.0}{2.0 \times 3.0 \times 4.0} = 11.3$ $\frac{3.0 \times 5.0 \times 6.0}{2.0 \times 3.0 \times 4.0}$		
+ 20		$\frac{+9.8}{10.5}$	$+15.3$	$\frac{+19.2}{12.8}$
+ 35		$\frac{+6.0}{9.5}$	$+1.8$	$\frac{+14.6}{11.7}$
+ 50		$\frac{+2.2}{8.6}$	$+6.2$	$\frac{+10.8}{10.7}$
+ 60	- 2.39 1089 + 50	$\frac{0.0}{8.0}$	$+2.7$	$\frac{+8.2}{10.1}$
+ 722	○ 4795.21			
336 + 85		$\frac{-9.8}{20.5}$	-4.6	$\frac{0.0}{8.0}$
337 + 05	- 2.70	$\frac{-11.2}{22.4}$	-8.4	$\frac{-4.7}{13.4}$
+ 30		$\frac{-29.5}{47.5}$	$\frac{-8.7}{-12.4}$	$\frac{-6.0}{4.0}$ 15.3
+ 50	1088 + 60	$\frac{-27.5}{44.8}$	-13.0	$\frac{-7.4}{17.2}$
+ 627	○ 4792.78			
337 + 75		$\frac{-25.2}{41.6}$	-13.6	$\frac{-10.4}{21.3}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc	Emb.
362.41		3238.2	
	S.	418 Sta 333+20% 336+85	Exc 3938.2
		113	
		1216	Class Slip Loose Rock 6389.4
294.25			Balance Cut Solid " 3299.3
	S.	276	
		133.5	Haulm So far
186.28			" 294 n. "
	S.	163	
		828	" 210 from 333.90 to 332+25 = 347
111.83			" 2250 + 335 + 60% 33990 = 5175
	S.	111	
		31.3	note 1578 Total Haul 5522
57.24	00		
	S.	46	
		17.7	30.8
		3737.8	
00	99.85	200.4	59.
		3938.2	
		113.3	
206.01			Sta 336+60% 339+90
		326.0	Emb 5583.6 C.Y. ✓
498.11			made from Cuts
		379.0	
525.15			
		498.8	
552.32			
		555.9	
		1903.8	

Sta	Grade.	L	C	R
338		$\frac{-36.8}{57.6}$	-13.2	$\frac{-7.4}{17.2}$

+25	-30.3	$\frac{-36.0}{56.5}$	-16.8	$\frac{-8.4}{18.6}$
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+50		$\frac{-37.4}{58.4}$	-13.8	$\frac{-8.0}{18.0}$
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+69	4789.56			
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+70		$\frac{-26.2}{43.1}$	-15.8	$\frac{-8.8}{19.1}$
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339		$\frac{-19.8}{34.2}$	-13.2	$\frac{-9.2}{19.7}$
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+25		$\frac{-19.8}{34.2}$	-14.5	$\frac{-12.0}{23.5}$
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+50	-27.1	$\frac{-22.6}{38.1}$	-13.0	$\frac{-8.0}{18.0}$
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+60		$\frac{-20.2}{34.8}$	-10.8	$\frac{-6.4}{16.8}$
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+75		$\frac{-14.0}{26.3}$	-7.2	$\frac{0.0}{8.0}$
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339+90		$\frac{0.0}{8.0}$	+4.2	$\frac{+6.6}{8.5}$
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Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
	648.38		190.38
			664.2
	786.24		681.6
	686.06		481.5
	613.88		595.1
	457.24		456.9
	529.63		463.6
	471.75		155.2
	366.34		149.7
00.	172.48		
		11.3	32.0
61.05	00 slip	2.6	5583.6
		98.7	
		117.6	

1111

8616

Sta Grade. L. C. R.

340+10

$\frac{+7.6}{9.9}$ +11.4 $\frac{+13.4}{11.4}$

Boulders $\frac{2.0 \times 2.0 \times 9.0}{2.0 \times 3.0 \times 6.0} = 9.8$
 $\frac{4.0 \times 4.0 \times 12.0}{}$

+20

$\frac{+8.2}{10.1}$ +13.0 $\frac{+14.2}{11.6}$

Boulders $\frac{3.0 \times 3.0 \times 3.0}{3.0 \times 3.0 \times 6.0} = 3.0$

+35

$\frac{+6.5}{9.6}$ +8.4 $\frac{+12.6}{11.2}$

+50

$\frac{+4.6}{9.2}$ +9.6 $\frac{+13.0}{11.3}$

-2.71

+75

$\frac{+5.8}{9.5}$ $\frac{+7.5}{8.0}$ +10.4 $\frac{+14.8}{11.7}$

Boulders $\frac{2.0 \times 4.0 \times 8.0}{2.0 \times 2.0 \times 6.0} = 3.3$

340+90

$\frac{+5.4}{9.4}$ $\frac{+7.6}{8.0}$ +11.0 $\frac{+14.4}{11.6}$

341+08.8 04783.06

341+10

$\frac{+2.0}{8.5}$ +9.0 $\frac{+10.0}{10.5}$

+25

$\frac{0.0}{8.0}$ +2.8 $\frac{+7.0}{9.8}$

+35

$\frac{-5.8}{15.8}$ $\frac{0.0}{2.0}$ +0.7 $\frac{+6.5}{9.6}$

-3.03

341+50

$\frac{-1.3}{9.0}$ $\frac{0.0}{7.0}$ +2.2 $\frac{+5.5}{9.4}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc	Emb.
		112.6	
20541	S.	9.2	
		98	
		80.8	
23065	S.	16.0	
		3.0	
		109.5	
16376	S.	7.6	
		92.4	
16880			
		169.4	
19723		3.3	
		110.6	
20112	S.	1.2	
		123.9	
13350	S.	8.6	
		57.8	
5292	00		
	S.	5.5	
		154	1.8
3006	14.50		
	S.	4.9	
		19.5	4.2
4004	0.65	2.7	
		27.5	0.2
		985.2	6.2

10/11

86/16

Sta	Grade.	L	C	R
341+70		$\frac{00}{8.0}$	+1.5	$\frac{+5.3}{9.4}$
342		$\frac{-7.0}{16.6}$	-3.6	$\frac{0.0}{4.0} \frac{+1.0}{8.3}$
+25		$\frac{00}{8.0}$	+0.8	$\frac{+3.2}{8.8}$
+35		$\frac{-0.5}{7.7}$	$\frac{0.0}{6.0}$ +1.4	$\frac{+3.2}{8.8}$
+50	-303	$\frac{00}{8.0}$	0.0	$\frac{+1.0}{8.3}$
+55		$\frac{+3.2}{8.8}$	+3.8	$\frac{+3.0}{8.8}$
	Boulder 3.0 x 5.0 x 8.0 = 44			
+70		$\frac{+5.7}{9.4}$	+7.7	$\frac{+9.8}{10.5}$
342+85		$\frac{+7.3}{9.8}$	+10.1	$\frac{+12.4}{11.1}$
343+10		$\frac{+12.4}{11.1}$	+14.6	$\frac{+16.8}{12.2}$
343+25		$\frac{+13.2}{11.3}$	+15.0	$\frac{+18.3}{12.6}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
34.25	00	985.2	6.2
	S.	0.5	Sta 341+25 to 342+50
		201	228 Emb 48.1 C.P. made
200	61.58		from Cuts
		10.0	19.0
19.52	00	7.9	0.1
23.16	0.25	48.1	
		7.5	
4.00	00		Sta 339+75 to 343+90 Emb 26156.4
			58 Class Slips Loose Rock 356.1 cu.
58.24	Slip	2.4	Balance Solid Rock 2259.5
		4.4	
		54.7	Haul 389 So from
138.62		"	40 m side from
	S.	8.8	
		89.7	" 2863 N. "
180.35		"	1720 from 343 to 338+90 = 7052
	S.	67.2	
		218.2	
286.99			
	S.	48.8	
		164.7	
306.05	S.	518	
		1816	
		1929.3	

56.16

Sta	Grade.	L.	C.	R.
343+40		$\frac{+139}{11.5}$	+17.8	$\frac{+190}{12.8}$
+50		$\frac{+14.2}{11.6}$	+16.2	$\frac{+176}{12.4}$
+70		$\frac{+9.0}{10.3}$	+10.0	$\frac{+105}{10.6}$
+85		$\frac{+2.8}{8.7}$	+3.0	$\frac{+38}{9.0}$
		Boulders $\frac{3.0 \times 4.0 \times 6.0}{2.0 \times 5.0 \times 6.0} = 6.7$ $\frac{3.0 \times 4.0 \times 4.0}{}$		
+90	-30.3	$\frac{0.0}{8.0}$	00	$\frac{0.0}{8.0}$
344		$\frac{-44}{13.1}$	-3.2	$\frac{-1.5}{9.2}$
+15		$\frac{-9.0}{19.4}$	$\frac{-5.4}{10.0}$ -2.8	$\frac{-1.0}{8.5}$
+30		$\frac{-10.7}{21.7}$	-5.6	$\frac{-3.7}{12.5}$
+50		$\frac{-18.8}{32.7}$	-9.6	$\frac{-4.6}{13.3}$
344+70		$\frac{-17.4}{30.9}$	-9.2	$\frac{-7.6}{12.0}$ -8.6 18.8

Areas.		Cub. Yds.	
Exc.	Emb.	Exc	Emb.

34787		1929.3	
		S. 38.1	
		124.0	

32160		S. 59.6	
		186.7	

18250		S. 19.3	
		65.4	

5295		S. 1.3	
		6.7	
		4.9	

00	00	2435.3	
		180.3 = 08.84	
		2615.6	

10.4

56.33

34.6

68.28

59.6

146.16

166.2

30270

226.2

308.18

244.0

741.0

16.16

Sta	Grade.	L.	C.	R.
344+90		$\frac{-180}{31.8}$	$\frac{-120}{6.0}$	$\frac{-56}{14.7}$

345		$\frac{-174}{30.9}$	$\frac{-40}{12.5}$	
-----	--	---------------------	--------------------	--

+15		$\frac{-19.8}{34.2}$	$\frac{-1.2}{8.8}$	
-----	--	----------------------	--------------------	--

+25		$\frac{-11.2}{23.4}$	$\frac{0.0}{8.0}$	
-----	--	----------------------	-------------------	--

+35		$\frac{-7.6}{17.5}$	$\frac{0.0}{1.0}$	$\frac{+4.0}{9.0}$
-----	--	---------------------	-------------------	--------------------

+50		$\frac{-3.4}{12.1}$	$\frac{0.0}{3.0}$	$\frac{+6.4}{9.6}$
-----	--	---------------------	-------------------	--------------------

+70		$\frac{0.0}{8.0}$	$\frac{+2.5}{9.8}$	
-----	--	-------------------	--------------------	--

+83 $\circ 4768.69$

+85		$\frac{+1.2}{8.3}$	$\frac{+10.8}{10.7}$	
-----	--	--------------------	----------------------	--

346

Boulder $7.0 \times 5.0 \times 12.0 = 15.6$

$\frac{+0.6}{8.2}$	$\frac{+5.4}{11.4}$	$\frac{+13.6}{11.4}$
--------------------	---------------------	----------------------

Boulders $\frac{3.0 \times 4.0 \times 10.0}{4.0 \times 7.0 \times 7.0} = 12.5$

346+15

$\frac{+0.7}{8.2}$	$\frac{+5.8}{11.3}$	$\frac{+13.3}{11.3}$
--------------------	---------------------	----------------------

Areas. Cob. Yds.
Exc. Emb Exc. Emb.

350.66

741.0

131.0 Sta 343+90 to 345+70

357.00

Emb 1102.4 Cuy. made

1494 from cuts.

181.00

47.8

00

77.20

Slip

0.3

1.7

20.4

14.00

33.08

S.

1.7

13.3

11.1

33.79

6.80

S.

1.9

31.1

17

50.25

00

S.

6.5

40.0

Sta 346+25 to 346+75 Exc 454.9 Cuy.

93.60

S.

14.6

15.6

56.5

Class Slip Loose Rock 74.3 "

Balance Solid Rock 380.6 "

109.72

S.

19.5

12.5

61.7

Hand 180 So for

170 from 346+15 to 344+95 = 204

112.55

S.

19.7

38.6

Waste 42.9

335.2

806

Sta Grade.

L

C

R

$$346 + 25$$

$$\begin{array}{r} 00 \\ 8.0 \end{array} + 42 \quad \begin{array}{r} +138 \\ 11.5 \end{array}$$

Boulder $2.0 \times 3.0 \times 5.0 = 11$

$$+35$$

$$\begin{array}{r} -22 \\ 10.3 \end{array} \begin{array}{r} 00 \\ 3.0 \end{array} + 15 \quad \begin{array}{r} +2.0 \\ 8.5 \end{array}$$

$$+50$$

$$\begin{array}{r} -86 \\ 188 \end{array} - 14 \begin{array}{r} 00 \\ 3.0 \end{array} + 2.0 \\ 8.5$$

$$+60$$

$$\begin{array}{r} -46 \\ 13.3 \end{array} - 08 \begin{array}{r} 00 \\ 2.0 \end{array} + 2.5 \\ 8.6$$

$$+63$$

① 4766.51

Boulders

$$\begin{array}{l} 3.0 \times 4.0 \times 5.0 \\ 3.0 \times 5.0 \times 15.0 \end{array} = 16.1$$

$$+75$$

$$\begin{array}{r} -7.0 \\ 19.4 \end{array} - 48 \quad \begin{array}{r} 00 \\ 8.0 \end{array}$$

$$346 + 90$$

$$\begin{array}{r} -16.0 \\ 29.0 \end{array} - 28 \quad \begin{array}{r} 00 \\ 8.0 \end{array}$$

$$347 + 05$$

$$\begin{array}{r} -18.4 \\ 32.3 \end{array} - 44 \quad \begin{array}{r} 00 \\ 8.0 \end{array}$$

$$+20$$

$$\begin{array}{r} -138 \\ 26.0 \end{array} - 38 \quad \begin{array}{r} 00 \\ 8.0 \end{array}$$

Boulders $\begin{array}{l} 3.0 \times 3.0 \times 6.0 \\ 4.0 \times 5.0 \times 8.0 \end{array} = 7.9$

$$+35$$

$$\begin{array}{r} -78 \\ 17.7 \end{array} \quad 00 \quad \begin{array}{r} +3.1 \\ 8.8 \end{array}$$

$$347 + 50$$

$$\begin{array}{r} -4.3 \\ 13.0 \end{array} \begin{array}{r} 00 \\ 4.0 \end{array} + 1.0 \quad \begin{array}{r} +3.0 \\ 8.8 \end{array}$$

V8

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
No. 15	005	9.7	
		1.1	
		20.9	0.5

16.63	440	0.4	
		6.0	13.8

5.00	45.36		Sta 346+25 to 348+70
------	-------	--	----------------------

22	12.5	Emb 1349.1	Cy.
----	------	------------	-----

7.20	22.22		1131.8 Cy. made from
------	-------	--	----------------------

1.3			
16.1	31.2	Cuts & swell in	

00	90.26	392.9	
		62.0	50.0
		454.9	
			55.0 borrowed on R 349

107.80			Class Loose Rock 217.3 Cy.
--------	--	--	----------------------------

72.5

153.06

73.9

00	112.90		
----	--------	--	--

7.9

2.3

39.0	Sta 347+20 to 347+65
------	----------------------

12.40	27.30		
-------	-------	--	--

Exp. 33.3 Cy. Solid Rock

8.5

9.4 Haul on side for

18.40	6.45		
-------	------	--	--

3.4

21.4

22.1

329.2

11.1

33.3

6/16

Sta	Grade.	L.	C.	R.
347	+65	$\frac{-114}{22.7}$	-2.0	$\frac{00}{8.0}$

+80	-24.7	$\frac{-16.2}{29.3}$	-6.3	$\frac{-3.8}{12.7}$
-----	---------	----------------------	------	---------------------

+90 Boy (ulvert $2 \times 2\frac{1}{2} \times 52'$)

348	$\frac{-29.0}{46.9}$	-14.9	$\frac{-10.2}{21.0}$
-----	----------------------	-------	----------------------

+079 04762.93

+10	1078+00	$\frac{-23.4}{39.2}$	-17.0	$\frac{-7.2}{16.0}$
-----	---------	----------------------	-------	---------------------

+35	-27.2	$\frac{-16.3}{29.5}$	-5.2	$\frac{00}{8.0}$
-----	---------	----------------------	------	------------------

+70	$\frac{00}{8.0}$	+2.8	$\frac{+7.4}{9.9}$
-----	------------------	------	--------------------

+85	$\frac{+1.8}{8.5}$	+4.9	$\frac{+10.0}{10.5}$
-----	--------------------	------	----------------------

+87⁹ 0476075

349	$\frac{+3.4}{8.9}$	+8.1	$\frac{+12.6}{11.2}$
-----	--------------------	------	----------------------

+20	-30.3	$\frac{+4.6}{9.2}$	+9.0	$\frac{+14.0}{11.5}$
-----	---------	--------------------	------	----------------------

349+35	$\frac{+5.6}{9.4}$	+9.6	$\frac{+16.3}{10.0}$	$\frac{+17.8}{12.5}$
+36	04759.29			

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

00	70.60	329.2	75.8
----	-------	-------	------

20230

313.1 Box Culvert = 1714 B.M.

643.06

225.8

576.30

338.4

00 154.55

23.6 66.8

54.66 00

1349.1

41.2

937.5

66.4

145.41

115.9

167.55

Slip 2.7
102.0

199.60

S 1.3
134.5
487.6

MM

8/16

Sta	Grade.	L	C	R
349+55		$\frac{+44}{9.1}$	+80	$\frac{+155}{119}$
+65		$\frac{+30}{8.8}$	$\frac{+12.0}{3.0}$	$\frac{+178}{5.0}$
			+94	$\frac{+192}{14.8}$
+75	-280	$\frac{+36}{8.9}$	+76	$\frac{+180}{12.5}$
349+90		$\frac{+38}{9.0}$	+90	$\frac{+138}{11.5}$
350+10		$\frac{+4.8}{9.2}$	+84	$\frac{+14.0}{11.5}$
+20	4736.94			
+50		$\frac{+3.7}{8.9}$	+94	$\frac{+144}{11.6}$
+70		$\frac{+4.2}{9.1}$	+90	$\frac{+154}{11.9}$
350+90	-263	$\frac{+50}{9.3}$	+95	$\frac{+162}{12.1}$
351+05		$\frac{+3.1}{8.8}$	+81	$\frac{+138}{11.5}$
351+20		$\frac{00.}{8.0}$	+3.5	$\frac{+96}{10.4}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
16360		487.6	
	S.	10	
		716	
22322			
	S.	24	
		724	
16772			
	S.	25	
		918	
16265			
		120.3	
16214			
	S.	45.2	
		245.1	
16875			
	S.	24.7	
		126.5	
17290			
	S.	28.9	
		133.1	
18645			
	S.	21.0	
		93.4	
14982			
	S.	21.7	
		61.2	
	S.	15.0	
7060	00	26.3	
		1691.7	

1000

1676

Sta	Grade.	L	C	R
351+35		$\frac{-19.0}{33.1}$	00	$\frac{+6.0}{9.5}$

+50		$\frac{-17.4}{30.9}$	$\frac{0.0}{1.0} + 0.6$	$\frac{+6.6}{9.7}$
-----	--	----------------------	-------------------------	--------------------

+75		$\frac{-12.0}{23.5}$	$\frac{0.0}{2.0} + 1.4$	$\frac{+7.6}{9.9}$
-----	--	----------------------	-------------------------	--------------------

352		$\frac{-11.8}{23.3}$	$\frac{0.0}{2.0} + 1.4$	$\frac{+8.1}{10.0}$
-----	--	----------------------	-------------------------	---------------------

+25		$\frac{-3.8}{12.7}$	$\frac{0.0}{4.0} + 3.4$	$\frac{+8.7}{10.2}$
-----	--	---------------------	-------------------------	---------------------

+40		$\frac{-1.2}{8.8}$	$\frac{0.0}{7.0} + 5.8$	$\frac{+11.8}{11.0}$
-----	--	--------------------	-------------------------	----------------------

+55		$\frac{0.0}{8.0}$	$+6.0$	$\frac{+14.0}{11.5}$
-----	--	-------------------	--------	----------------------

+70		$\frac{+2.8}{8.7}$	$+7.3$	$\frac{+13.2}{6.0} \frac{+15.6}{11.9}$
-----	--	--------------------	--------	--

Boulder 6.0 x 7.0 x 10.0 = 15.6

352+90		$\frac{+1.2}{8.3}$	$+6.8$	$\frac{+13.3}{11.3}$
--------	--	--------------------	--------	----------------------

353+05		$\frac{+1.3}{8.3}$	$\frac{+9.0}{3.0} + 9.6$	$\frac{+16.0}{12.0}$
--------	--	--------------------	--------------------------	----------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc	Emb.
2400	66.50	1691.7	12.3
		120	
		14.9	33.0
			Emb 128.2 Cy.
29.61	52.20		made from Cuts
		16.9	
		31.6	38.1
38.73	30.00		
		17.4	
		36.8	27.5
40.80	29.50		
		13.2	
		46.2	16.3
58.94	5.70		
		3.4	
		44.0	1.0
99.40	00		128.2
		1.93	
		59.4	Sta 348.35 to 353.15 Exc 2973.7 Cy
114.50	00		Class Slips Loose Rock 402.8 Cy
		41.9	
		76.0	Balance Solid Rock 2570.9
159.00			
		36.9	Haul 227 So fill
		15.6	" 107. along side fill
		105.0	" 267 "
			" 680 from 344.65 to 348 = 1122
124.64			" 280 " 350 + 406 344 + 70 = 1596
		13.3	" 530 " 352 + 706 354 35 = 875
		83.7	waste 592.2 - Total Haul 3593
176.60			
		16.1	
		80.8	
		2076.1	

MM

8616

Sta	Grade.	L	C	R
353+20	04749.05	$\frac{+1.7}{8.4}$	+6.4	$\frac{+11.5}{10.9}$
+30		$\frac{0.0}{8.0}$	+4.0	$\frac{+12.6}{11.2}$
+45	+6.5	$\frac{-0.7}{8.0}$	$\frac{0.0}{7.0}$ +4.8	$\frac{+10.0}{10.5}$
+65	-28.0	$\frac{-2.1}{10.1}$	$\frac{0.0}{5.0}$ +2.0	$\frac{+7.0}{9.8}$
+75		$\frac{0.0}{8.0}$	+2.4	$\frac{+5.5}{9.4}$
+85		$\frac{-21.0}{35.9}$	$\frac{-11.0}{10.0}$ $\frac{0.0}{4.0}$ +1.5	$\frac{+2.5}{8.6}$
353+95		$\frac{-23.0}{38.6}$	-5.4	$\frac{0.0}{8.0}$
354+04	04746.70			
354+15		$\frac{-33.8}{53.5}$	-8.8	$\frac{-4.0}{12.5}$
+30	3.03	$\frac{-33.0}{52.4}$	-11.3	$\frac{-4.4}{13.1}$
354+50	-	$\frac{-33.0}{52.4}$	-10.0	$\frac{-3.2}{11.8}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
114.16		2476.1	
		s. 8.4	
		376	
88.80	00	s. 16.0	
		47.5	
82.00	00	s. 7.9	
		46.2	0.9
42.80	2.10	s. 7.2	
		15.9	0.2
42.88	00	s. 5.4	
		11.5	17.8
19.45	143.95	s. 1.1	
		2.4	64.9
		2683.2	
00	206.32	290.5	50.
		2973.7	233.0
	422.70		
			256.6
	500.98		
			351.4
	447.70		
			429.1
			1353.9

16/6

Sta	Grade	L	C	R
354+75		$\frac{-27.8}{45.3}$	-12.4	$\frac{-4.8}{13.6}$
355		$\frac{-19.8}{34.2}$	-7.4	$\frac{-3.6}{12.4}$
+25		$\frac{-27.4}{44.7}$	-6.0	$\frac{-1.8}{9.7}$
+30		$\frac{-23.8}{39.7}$	-4.0	$\frac{0.0}{8.0}$
+50	303	$\frac{-8.0}{18.0}$	$\frac{0.0}{1.0}$ +0.5	$\frac{+4.6}{9.2}$
+65	-	$\frac{0.0}{8.0}$	+4.0	$\frac{+9.2}{10.3}$
355+85		$\frac{+2.3}{8.6}$	+7.6	$\frac{+12.2}{11.1}$
356+05		$\frac{+5.2}{9.3}$	+8.6	$\frac{+14.0}{11.5}$
+20		$\frac{+4.2}{9.1}$	+9.0	$\frac{+14.2}{11.6}$
356+40		$\frac{+2.6}{8.7}$	+7.0	$\frac{+11.6}{10.9}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
479.28		1353.9	Sta 353+45 to 355+65 ✓
		339.6	Emb. 2054.7 ✓ Cef. ✓
254.32		1907.9	made from
		240.6	Cut & spill on borrow
265.40			matl, balance from
		41.1	Bit on R 355+50
00	178.70		Class. Loose Rock 146.8 Cef. ✓
		52	75.1
209.5	24.00		
		26.2	4.4 ✓
73.40	00	2054.7 ✓	
	S	11.8	
		76.4	
132.86			
	S	26.0	
		110.8	
166.24			
	S	26.2	
		92.5	
166.75			
	S	14.8	
		108.2	
125.40			
	S	3.6	
		75.6	
		577.3	

1616

Sta	Grade	L	C	R
356+60		$\frac{00}{8.0}$	+44	$\frac{+96}{104}$

357	-303	$\frac{00}{8.0}$	+46	$\frac{+98}{105}$
-----	------	------------------	-----	-------------------

+15		$\frac{+2.0}{8.5}$	+70	$\frac{+114}{109}$
-----	--	--------------------	-----	--------------------

+23	04737.04			
-----	----------	--	--	--

+40		$\frac{+2.2}{8.6}$	+76	$\frac{+146}{117}$
-----	--	--------------------	-----	--------------------

+60		$\frac{+2.6}{8.7}$	+80	$\frac{+146}{117}$
-----	--	--------------------	-----	--------------------

+75		$\frac{+3.8}{9.0}$	+74	$\frac{+126}{112}$
-----	--	--------------------	-----	--------------------

357+90	-271	$\frac{+1.5}{8.4}$	+62	$\frac{+110}{108}$
--------	------	--------------------	-----	--------------------

358+10		$\frac{+2.6}{8.7}$	+73	$\frac{+120}{110}$
--------	--	--------------------	-----	--------------------

+35		$\frac{+2.8}{8.7}$	+68	$\frac{+13.3}{11.3}$
-----	--	--------------------	-----	----------------------

Boulder 80x10.0x14.0=41.5

358+60		$\frac{+3.8}{9.0}$	+93	$\frac{+136}{114}$
--------	--	--------------------	-----	--------------------

Areas.

Cub. Yds.

51

Exc. Emb. Exc. Emb.

78.88

577.3

S. 10.1
119.0

81.75

S. 6.3
56.4

121.50

S. 9.4
123.1

144.34

S. 1.9
109.1

150.40

S. 3.0
80.8

140.34

S. 2.0
69.4

109.52

S. 1.0
88.8

130.31

S. 2.6
121.6

132.40

S. 4.1
41.5
137.4

164.46

S. 1.9
77.7

164.44

164.44

Sta	Grade.	L.	C.	R.
358+75		$\frac{+19}{8.5}$	+67	$\frac{+108}{107}$
359		$\frac{00}{8.0}$	+46	$\frac{+104}{106}$
+25		$\frac{00}{8.0}$	+49	$\frac{+90}{103}$
+40	-271	$\frac{00}{8.0}$	+42	$\frac{+86}{102}$
+60		$\frac{-174}{30.9}$	00	$\frac{+57}{94}$
+80		$\frac{-110}{22.1}$	$\frac{00}{2.0}$ +11	$\frac{+80}{100}$
+81 ¹	04730.04			
360		$\frac{-70}{6.6}$	$\frac{00}{5.0}$ +28	$\frac{+11.0}{108}$
+20	-303	$\frac{00}{8.0}$	+54	$\frac{+12.0}{11.0}$
+35		$\frac{+42}{9.1}$	+86	$\frac{+15.2}{11.8}$
360+45		$\frac{+28}{8.7}$	+89	$\frac{+13.2}{11.3}$
+48	04728.02			

Areas		Cub. Yds.	
Exc	Emb.	Exc	Emb.

115.12

1644.4
S. 9.6
92.4

84.38

S. 26.1
76.5

80.84

S. 10.1
42.6

72.62

00

S. 6.2
35.3

15.0 Sta 3574.40 to 3601.20

22.80

60.90

S. 10.4
22.7

Emb 62.2 cy. made

32.7 from cut.

38.60

27.50

S. 4.2
38.8

12.8

66.12

700

S. 5.0
61.3

1.7

99.30

00

S. 11.3
74.1

62.2

167.47

S. 15.9
59.3

153.00

S. 39.1
91.1

2376.4

16/6

Sta	Grade	L	C	R
360+65		$\frac{00}{8.0}$	+5.2	$\frac{+11.0}{10.8}$

360+90		$\frac{-11.9}{24.9}$	$\frac{00}{1.0} + 0.5$	$\frac{+4.1}{9.0}$
--------	--	----------------------	------------------------	--------------------

361+05		$\frac{00}{8.0}$	+4.0	$\frac{+6.0}{9.5}$
--------	--	------------------	------	--------------------

+15		$\frac{+2.0}{8.5}$	$\frac{+4.9}{8.0} + 8.1$	$\frac{+9.4}{10.4}$
-----	--	--------------------	--------------------------	---------------------

+38 04725.59

+50		$\frac{+10.4}{10.6}$	+15.7	$\frac{+20.6}{13.2}$
-----	--	----------------------	-------	----------------------

Boulder 4.0 x 9.0 x 11.0 = 14.7

361+95		$\frac{+7.6}{9.9}$	+11.3	$\frac{+19.0}{12.8}$
--------	--	--------------------	-------	----------------------

362+15		$\frac{+4.6}{9.2}$	+9.8	$\frac{+14.7}{11.7}$
--------	--	--------------------	------	----------------------

+40		$\frac{+3.6}{8.9}$	+6.8	$\frac{+13.4}{11.4}$
-----	--	--------------------	------	----------------------

+65		$\frac{0.0}{8.0}$	+5.2	$\frac{+15.0}{11.8}$
-----	--	-------------------	------	----------------------

Boulder 3.0 x 4.0 x 5.0 = 2.2

362+85		$\frac{-26.0}{46.0}$	-4.3	$\frac{0.0}{8.0}$
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Areas. Cub. yds.
Exc. Emb. Exc. Emb.

92.88	00	2376.4	Sta 360 + 65 to 361 + 05
		s. 31.8	
		51.5	11.0 Emb. 17.6 Cy. made
18.45	35.70		from cut
		s. 12.4	
		21.5	6.6
5900	00	17.6	
		s. 12.4	
		35.5	Sta 355 + 30 to 362 + 85 Exc 449.7 Cy.
132.95			Class Slip 80% L. Rock 523.2
		s. 120.3	
		287.6	Balance Cut Solid " 3968.5
310.83		s. 80.2	Haul 258 So for
		14.7	
		454.6	" mt. n "
234.66			" 53 alongside for
		s. 38.4	
		153.4	" 510. from 358 + 46 to 354 + 80 = 816
179.61			" 2858 + 360 + 80 to 362 + 85 = 10718
		s. 29.3	
		146.8	date 175.3 ~ Total Haul 11534
137.42			
		s. 41.6	
		115.2	
111.48	00	s. 25.0	
		2.2	
		27.5	51.1
		407.83	
00	207.10	413.4	50. 90.3
		449.17	141.4

Sta	Grade	L	C	R
362+95		$\frac{-282}{49.3}$	-60	$\frac{-16}{9.4}$

363+05		$\frac{-284}{49.6}$	-46	$\frac{00}{8.0}$
--------	--	---------------------	-----	------------------

+40		$\frac{00}{8.0}$	+49	$\frac{+11.6}{10.9}$
-----	--	------------------	-----	----------------------

+50		$\frac{+1.1}{8.3}$	+6.2	$\frac{+10.2}{10.6}$
-----	--	--------------------	------	----------------------

+75		$\frac{00}{8.1}$	+31	$\frac{+6.0}{9.5}$
-----	--	------------------	-----	--------------------

-239

363+90		$\frac{-6.3}{16.5}$	-14	$\frac{00}{8.0}$
--------	--	---------------------	-----	------------------

364+20		$\frac{-31.7}{54.6}$	-134	$\frac{-11.8}{24.7}$
--------	--	----------------------	------	----------------------

+45		$\frac{-59.0}{95.5}$	-27.0	$\frac{-22.7}{41.1}$
-----	--	----------------------	-------	----------------------

+70		$\frac{-57.0}{88.1}$	-32.2	$\frac{-19.9}{36.9}$
-----	--	----------------------	-------	----------------------

365		$\frac{-37.7}{63.7}$	-20.7	$\frac{-11.2}{23.8}$
-----	--	----------------------	-------	----------------------

106 10

Areas		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
	280.40	141.4	Sta 362+65 to 363+40
		94.9	Emb 336.5 Cy.
00	231.88		Made from Cut.
		40.1	100.2
92.70	00	336.5	
		36.4	Sta 363+05 to 363+90 Emb
103.79		193.2	by Solid Rock
		71.7	Haul North side
51.13	00		
		9.4	7.3
00	39.20	157.6	
		35.6	54.
		193.2	
		401.5	
683.56			
		1302.6	
2130.05			
		2020.1	
2233.35			
		1838.9	
1076.78		838.8	
		6409.2	

Section — 7

Sta	Grade.	L	C	R
365+40		$\frac{-7.6}{18.4}$	-22	$\frac{00}{8.0}$
+55		$\frac{00}{8.0}$	+17	$\frac{+3.8}{9.0}$
+65	-239	$\frac{+1.1}{8.3}$	+32	$\frac{+5.0}{9.3}$
366		$\frac{+11.0}{10.8}$	+13.4	$\frac{+16.7}{12.2}$
+20		$\frac{+9.4}{10.4}$	+12.7	$\frac{+17.4}{12.4}$
+21'	04714.04			
+55		$\frac{+11.2}{10.8}$	+15.1	$\frac{+19.3}{12.8}$
+85	-270	$\frac{+9.0}{10.3}$	+11.5	$\frac{+13.9}{11.5}$
367		$\frac{+7.0}{9.8}$	+9.4	$\frac{+11.8}{11.0}$

Areas		Ob. yds.	
Exc.	Emb.	Exc.	Emb.
00	55.64	6409.2	Sta 363+75 to 365+55
		5.5	10.3 Emb 6419.5 Cy.
29.65	00	6419.5	6035.6 Cy. made from
		15.2	Cuts & fill on borrow matl,
52.56			Balance 3839 from Pile on R
	Sip. 58.4	205.8	363+509 365+50, Class borrow
			3 Loose Rock = 128.0 Cy.
264.90			73 Solid " = 255.9
	S. 83.4	191.4	
251.98			
	S. 179.2	357.9	Sta 365+40 to 367 Exp 1754.9 Cy.
300.18			Class Slip 3 Lo. Rock 164.4
	S. 130.4	287.3	Balance Cat Solid " 1590.5
216.95			Haul 428.5 So. from
	S. 41.7	108.3	" 450 from 366+25 to 365 = 562
		1664.5	
172.96		90.4	S.G. 786, 366+65 to 364+70 = 2398
		1754.9	
			Total Haul 2960

W

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Section 7

PAGES	Acres Cleared	Excavation - Cub. Yds			
		Total Cut	Earth	L. Rock	S. Rock
25		407.4		40.6	366.8
26					
27		331.0			331.0
27					
28		2674.1		487.7	2186.4
30	8.39	301.9			301.9
31		88.4			88.4
33		1034.2			1034.2
36		125.3			125.3
37					
37					
39		3938.2		638.9	3299.3
42		2615.6		356.1	2259.5
44		454.9		74.3	380.6
45		33.3			33.3
46					
48		2973.7		402.8	2570.9
50					
52					
53		4491.7		523.2	3968.5
54		193.2			193.2
55		1754.9		164.4	1590.5
8.39		21417.8		2688.0	18729.8

Summary

76

Cu. Yds.	Cu. Yds.	Borrow		Cu. Yds.	Cu. Yds.	Lumber
Total in	Banks made				Haul	in
Banks	from Cuts	Lo. Rock	S. Rock			Chverts
						F. B. M.
9.0 ✓	9.0 ✓				26.0 ✓	
75.4 ✓	75.4 ✓					
1093.3 ✓	1023.3 ✓	70.0 ✓			230. ✓	
89.8 ✓	89.8 ✓					
11.3 ✓	11.3 ✓				4503 ✓	
2523.6 ✓	2523.6 ✓					
982.3 ✓	982.3 ✓				48 ✓	
7.7 ✓	7.7 ✓				1404 ✓	
546.3 ✓	546.3 ✓					
342.7 ✓	342.7 ✓					
4.0 ✓	4.0 ✓					
5583.6 ✓	5583.6 ✓				5522 ✓	
48.1 ✓	48.1 ✓				7052 ✓	
1102.4 ✓	1102.4 ✓				204 ✓	
1349.1 ✓	1131.8 ✓	217.3 ✓				
128.2 ✓	128.2 ✓				3593 ✓	1714 ✓
2054.7 ✓	1907.9 ✓	146.8 ✓				
62.2 ✓	62.2 ✓					
17.6 ✓	17.6 ✓				11534 ✓	
336.5 ✓	336.5 ✓					
6419.5 ✓	6035.6 ✓	128.0 ✓	255.9 ✓	296.0 ✓		
22787.3 ✓	21969.3 ✓	562.1 ✓	255.9 ✓	3731.0 ✓	171.6 ✓	

Section 7

Borrow Pit on R. sta 348+48 to 349+20

Stations	C	R	Areas	Cub. Yds
348+48	00 8.0		0.00	
+55	00 8.0	$\begin{pmatrix} +3.0 \\ 8.8 \end{pmatrix} +3.2 +5.4 +1.2$	11.0 20.0 24.6	48.50
+70	00 8.0	$\begin{pmatrix} +7.4 \\ 9.9 \end{pmatrix} +1.2 +7.6 +1.0$	11.0 24.0 28.0	136.15
+85	00 8.0	$\begin{pmatrix} +1.0 \\ 10.2 \end{pmatrix} +10.0 +13.0 +1.8$	10.5 29.0 31.0	137.65
+90	00 8.0	$\begin{pmatrix} +1.0 \\ 9.6 \end{pmatrix} +11.0 +10.6 +1.4$	10.8 25.0 28.0	141.62
349	00 8.0	$\begin{pmatrix} +12.6 \\ 11.2 \end{pmatrix} +3.0 +1.0$	13.0 20.2	73.86
+13	00 8.0	$\begin{pmatrix} +11.6 \\ 10.9 \end{pmatrix}$		17.8
			0.00	217.3

Figures in ring show original surface

Borrow Pit in extra width of Cut 355+30 to 355+75

355+30	00 8.0		0.00	
+50	00 15.0	$\begin{pmatrix} +4.6 \\ 9.2 \end{pmatrix} +14.4$	32.0	96.96
+65	00 16.0	$\begin{pmatrix} +9.2 \\ 10.3 \end{pmatrix} +20.8$	56.0	188.08
+75	00 10.0	$\begin{pmatrix} +10.6 \\ 10.7 \end{pmatrix} +15.0$	18.0	47.75
				146.8

Figures in ring show original surface

Section 7

57

Borrow Pit in extra width of Cut 363+05 to 363+90

Stations	C	R	Areas	Cub. Yds.
363+05	$\frac{00}{8.0}$		0.00	
+12	$\frac{00}{15.0}$	$\frac{+2.3}{8.6} + \frac{+12.6}{20.6}$	54.81	4.7
+25	$\frac{00}{8.4}$	$\frac{+6.6}{9.6} + \frac{+16.0}{22.0}$	36.60	22.0
+40	$\frac{00}{8.6}$	$\frac{+11.6}{10.9} + \frac{+17.0}{26.0} + \frac{+26.0}{29.4}$	143.62	50.1
+50	$\frac{00}{9.2}$	$\frac{+10.2}{10.6} + \frac{+16.0}{27.0} + \frac{+25.0}{30.4}$	149.64	54.3
+60	$\frac{00}{11.0}$	$\frac{+8.6}{10.2} + \frac{+10.2}{25.0} + \frac{+15.0}{28.0}$	110.30	48.1
+75	$\frac{00}{16.2}$	$\frac{+6.0}{9.5} + \frac{+10.0}{21.0}$	72.50	50.8
+87	$\frac{00}{15.0}$	$\frac{+1.2}{8.3} + \frac{+4.6}{18.0}$	21.41	20.8
+90	$\frac{00}{5.0}$		0.00	0.8
				251.6

Borrow Pit in extra width of Cut 365+35 to 365+83

365+35	$\frac{00}{8.0}$		0.00	
+40	$\frac{00}{8.0}$	$\frac{00}{17.0} + \frac{+6.0}{20.4}$	27.00	2.5
+55	$\frac{00}{18.0}$	$\frac{+3.8}{9.0} + \frac{+9.0}{22.0}$	67.10	26.1
+65	$\frac{00}{17.0}$	$\frac{+5.0}{9.3} + \frac{+14.0}{27.0}$	101.40	31.2
+75	$\frac{00}{16.0}$	$\frac{+8.2}{10.1} + \frac{+16.6}{30.0}$	139.17	44.4
+83	$\frac{00}{8.0}$	$\frac{+11.0}{10.8} + \frac{+15.0}{21.0}$	50.50	28.1
				132.3

SECTION 7 COST

CLEARING	839 ✓ ACRES	@ 35.00	293.65 ✓
EXCAVATION L ROCK	26880 ✓ CU. YDS @	0.45	1209.60 ✓
"	S ROCK 187298 ✓	" 0.90	16856.82 ✓
BORROW	L ROCK 5621 ✓	" 0.40	224.84 ✓
"	S ROCK 2559 ✓	" 0.90	230.31 ✓
HAUL	100 FT. 37310. ✓	" 0.015	559.65 ✓
LUMBER	1714 ✓	12.00 M	20.57 ✓
			✓ 19395.44 ✓

✓
107 m K

✓
293.65✓
209.60✓
856.82✓
224.84✓
230.31✓
559.65✓
20.57✓
95.44

1677/6

Section ~ 8

Sta	Grade.	L.	C.	R
367		$\frac{+7.0}{9.8}$	+9.4	$\frac{+11.8}{11.0}$
	+11' 0471161			
+30		$\frac{+2.9}{8.7}$	+5.1	$\frac{+7.8}{10.0}$
+60		$\frac{+2.7}{8.7}$	+6.0	$\frac{+8.4}{10.1}$
367+90		$\frac{0.0}{8.0}$	+2.3	$\frac{+4.5}{9.1}$
368+15		$\frac{-4.3}{13.5}$	-1.4	$\frac{0.0}{8.0}$
368+55	-30.3	$\frac{-20.1}{37.2}$	-8.0	$\frac{-4.0}{13.0}$
369+05		$\frac{-16.1}{31.2}$	-5.3	$\frac{-0.8}{8.2}$
+30		$\frac{-10.8}{23.2}$	-5.4	$\frac{-3.7}{12.6}$
+60		$\frac{-12.3}{25.5}$	-8.9	$\frac{-5.3}{15.0}$
369+80		$\frac{-10.0}{22.0}$	-17.4 15.2-14.4	$\frac{-10.7}{23.1}$

1056230

Areas:

Cub. yds.

59

Exc.

Emb.

Exc.

Emb.

172.96

S 216

148.2

Sta 367 to 368 + 15 Exc 434.5 cu.

90.49

S 7.7

106.3

Class Slip 30. Rock 102.0

Balance Solid " 424.3

100.80

S 1.4

76.9

Haul 1537 North fore

" 220 from 367 to 368 + 65 = 320

37.67

00

116

9.3

00

30.10

373.7

60.8

59

434.5

233.5

285.15

415.5

163.56

104.0

147.41

216.2

241.83

261.3

463.61

287.9

1567.7

866

Sta

Grade.

L

P

R

Ex

370

$$\begin{array}{r} -9.7 \\ 21.6 \end{array} \quad \begin{array}{r} -16.0 \\ 12.0 \end{array} \quad -11.9 \quad \begin{array}{r} -4.2 \\ 13.3 \end{array}$$

+25

$$\begin{array}{r} -8.3 \\ 19.5 \end{array} \quad \begin{array}{r} -18.5 \\ 4.0 \end{array} \quad -16.2 \quad \begin{array}{r} -7.5 \\ 18.3 \end{array}$$

Boulder 3.0x4.0x7.0 = 3.1

+65

$$\begin{array}{r} -6.2 \\ 16.3 \end{array} \quad -5.4 \quad \begin{array}{r} -3.3 \\ 12.0 \end{array} \quad \begin{array}{r} 1.0 \\ 1.0 \end{array}$$

371 Back Up =
373+90 Go Ahead

$$\begin{array}{r} 0.0 \\ 11.0 \end{array} \quad -2.5 \quad \begin{array}{r} -1.1 \\ 8.6 \end{array} \quad 11.0$$

371 Back Up

$$\begin{array}{r} 0.0 \\ 24.0 \end{array} \quad \begin{array}{r} 0.0 \\ 11.0 \end{array} \quad -2.5 \quad \begin{array}{r} -1.1 \\ 8.6 \end{array} \quad 24.0$$

+05

$$\begin{array}{r} +0.8 \\ 24.2 \end{array} \quad \begin{array}{r} 0.0 \\ 11.0 \end{array} \quad -1.4 \quad \begin{array}{r} 0.0 \\ 8.0 \end{array} \quad 24.0$$

+22 04699.16

+30

$$\begin{array}{r} +3.7 \\ 24.4 \end{array} \quad \begin{array}{r} +5.7 \\ 14.5 \end{array} \quad +6.7 \quad \begin{array}{r} +7.0 \\ 9.8 \end{array} \quad 23.5$$

+462 04698.57

+50

$$\begin{array}{r} +6.0 \\ 21.0 \end{array} \quad \begin{array}{r} +8.5 \\ 11.5 \end{array} \quad +9.3 \quad \begin{array}{r} +10.1 \\ 10.5 \end{array} \quad 19.5$$

371+75

$$\begin{array}{r} +2.5 \\ 13.1 \end{array} \quad \begin{array}{r} +4.0 \\ 6.5 \end{array} \quad +4.9 \quad \begin{array}{r} +6.2 \\ 9.6 \end{array} \quad 14.5$$

372+15

$$\begin{array}{r} +1.9 \\ 10.2 \end{array} \quad +3.0 \quad \begin{array}{r} +3.8 \\ 9.0 \end{array} \quad 9.7$$

Areas. Cub. yds.
Exc. Emb. Exc. Emb.

313.79 1567.7

330.3 Sta 370+30 Exc 3.14 ✓

399.71

Solid Rock

3.1 3680

3.1 ✓

97.06

813 Sta 367+90 to 371+30

2835

Emb 2355.3 Cyl. ✓

2078.6 made from

00 2835

Cuts by well in

0.3 39 borrowd mail

520 1330

balance 276.7 from

934

4.1 Pit in R 367+60 ✓

196.59 00

2355.3 Ches 3 Lo Rock 92.24 ✓

167.6

3 S. Rock 184.5 ✓

255.95

Haul 160' = 442 ✓

166.9

104.45

Sta 371 to 372+35 Exc. 670.2 Cyl. S.R.

115.6 Haul 344 into Go ahead from

5160

" 220 from 371+80 to 374+45

of Go ahead 135' = 297 ✓

184
562.2

Wm

412

Sta	Grade.	L.	C.	R
372+25		$\frac{00}{9.0}$	+0.7	$\frac{+2.1}{8.5}$ R B on L 9.0

+35		$\frac{-4.9}{14.4}$	-2.6	$\frac{00}{8.0}$
-----	--	---------------------	------	------------------

+46² 04698.57

+50		$\frac{-8.6}{19.9}$	-6.4	$\frac{-1.9}{9.9}$
-----	--	---------------------	------	--------------------

+75		$\frac{-6.2}{16.3}$	-3.8	$\frac{-2.5}{10.8}$
-----	--	---------------------	------	---------------------

+80		$\frac{00}{8.0}$	00	$\frac{00}{8.0}$
-----	--	------------------	----	------------------

Boulder 3.0 x 4.0 x 8.0 = 36

+85		$\frac{+2.0}{8.5}$	+2.4	$\frac{+2.4}{8.6}$
-----	--	--------------------	------	--------------------

Boulder 3.0 x 5.0 x 9.0 = 57.0

373		$\frac{00}{8.0}$	+2.6	$\frac{+4.0}{9.0}$
-----	--	------------------	------	--------------------

Boulders
 3.0 x 3.0 x 3.0
 4.0 x 4.0 x 4.0 = 6.2
 4.0 x 4.0 x 5.0

+30		$\frac{-1.5}{9.3}$	$\frac{00}{5.0}$	+1.7 $\frac{+3.5}{8.9}$
-----	--	--------------------	------------------	----------------------------

Boulders
 3.0 x 4.0 x 6.0
 3.0 x 4.0 x 4.0 = 8.9
 4.0 x 5.0 x 6.0

+50		$\frac{00}{8.0}$	+1.5	$\frac{+3.9}{8.9}$
-----	--	------------------	------	--------------------

373+80		$\frac{+6.2}{9.6}$	+6.2	$\frac{+7.3}{9.8}$
--------	--	--------------------	------	--------------------

Areas. Cub. yds.
Exc. Emb. Exc. Emb.

1453 00 5622

1.8 5.7

564.0

00 4627 106.2 56.

670.2

Sta 372+25 to 372+80

49.5 Emb 161.9 Cut.

132.11

Made from Cut.

99.1

819.4

76

161.9

00

00

36
3.5

38.12

5.0
21.2

38.10

00

62
35.5

08 Sta 373+373+50

25.81 150

Emb 13 Cy. made

8.9
19.7

0.5 from Cut

1.3

27.47

00

S 8.5
78.7

114.14

S 75.9
4.9
271.6

1676

Sta	Grade.	L	C.	R
373+90		$\frac{+16.0}{12.0}$	+16.2	$\frac{+11.5}{10.9}$
374+10		$\frac{+17.9}{12.5}$	+17.6	$\frac{+14.0}{11.5}$
+50		$\frac{+10.2}{10.6}$	+11.3	$\frac{+12.0}{11.0}$
375	+200	$\frac{+5.2}{9.3}$	+7.6	$\frac{+10.5}{10.6}$
+50		$\frac{+2.5}{8.6}$	+4.8	$\frac{+7.6}{9.9}$
+60		$\frac{0.0}{8.0}$	+2.8	$\frac{+5.6}{9.4}$
+73		$\frac{-10.1}{22.2}$	-3.1	$\frac{0.0}{8.0}$
+90		$\frac{-14.3}{26.7}$	-11.2	$\frac{-7.0}{16.6}$
376		$\frac{11.2}{22.4}$	-9.8	$\frac{-7.0}{16.6}$
+10		$\frac{-4.8}{13.6}$	-5.2	$\frac{-2.8}{11.2}$
+20		$\frac{0.0}{8.0}$	0.0	$\frac{0.0}{8.0}$

E7d Tail

Areas.

Cub. yds.

Exc. Emb. Exc. Emb.

295.49

271.6

S 23.9

234.9

Sta 372+80 to 375+73 E 20230 ✓
Class Sep Loose Rock 393.7 Cy.

338.80

S 98.6

407.1

Balance Cut Solid " 1624.36 ✓
Haul 130 So. 2 along side for ✓

210.80

S 181.2

323.4

" 261.97 " "

" 160. from 373+80 to 374+61 = 50.4 ✓

138.42

S 46.6

206.7

" 1304 to 374+40 to 374+80

of Gravel 430' = 5607 ✓
Total Haul 6111 ✓

84.86

S 30.0

24.4

46.76

00

00

82.16

185.59

167.15

2023.0 ✓

13.2

Sta 375+60 to 376+20

125.7 Emb 325.8 Cy.

317.03

105.9

made from Cut.

254.80

64.1

91.08

16.9

00

325.8 ✓

446

$$373+462 = 04698.57$$

Sta Grade.

$$371 \text{ Back Up} =$$

$$373+90 \text{ Go Ahead}$$

L. C. R

$$\begin{array}{r} 00 \\ 50 \end{array} \quad 00 \quad \begin{array}{r} 00 \\ 80 \end{array}$$

$$374$$

-290

$$\begin{array}{r} -09 \\ 84 \end{array} \quad -1.8 \quad \begin{array}{r} -41 \\ 132 \end{array}$$

$$+009 \quad 04696.98$$

$$+15$$

$$\begin{array}{r} -05 \\ 78 \end{array} \quad -1.0 \quad \begin{array}{r} -26 \\ 10.9 \end{array}$$

$$\text{Boulders } \begin{array}{l} 4.0 \times 5.0 \times 12.0 \\ 4.0 \times 4.0 \times 5.0 \end{array} = 11.9$$

$$+25$$

$$\begin{array}{r} -24 \\ 106 \end{array} \quad -1.9 \quad \begin{array}{r} -6.3 \\ 16.5 \end{array}$$

$$374+70$$

$$\begin{array}{r} -10.7 \\ 23.1 \end{array} \quad -23.6 \quad \begin{array}{r} -39.0 \\ 27.0 \end{array} \quad \begin{array}{r} -32.3 \\ 55.5 \end{array}$$

$$375+05$$

-350

$$\begin{array}{r} -6.7 \\ 17.1 \end{array} \quad -11.7 \quad \begin{array}{r} -186 \\ 16.0 \end{array} \quad \begin{array}{r} -470 \\ 50.0 \end{array} \quad \begin{array}{r} -42.0 \\ 70.0 \end{array}$$

$$+30$$

$$\begin{array}{r} 00 \\ 8.0 \end{array} \quad -2.5 \quad \begin{array}{r} -39 \\ 7.0 \end{array} \quad \begin{array}{r} -50.2 \\ 82.3 \end{array}$$

$$+40$$

$$\begin{array}{r} +21 \\ 8.5 \end{array} \quad \begin{array}{r} 00 \\ 4.0 \end{array} \quad -0.7 \quad \begin{array}{r} -26 \\ 7.0 \end{array} \quad \begin{array}{r} -53.0 \\ 86.5 \end{array}$$

$$\text{Boulders } \begin{array}{l} 2.0 \times 4.0 \times 7.0 \\ 4.0 \times 4.0 \times 6.0 \end{array} = 5.6$$

$$+70$$

$$\begin{array}{r} 00 \\ 8.0 \end{array} \quad -4.2 \quad \begin{array}{r} -37.2 \\ 62.8 \end{array}$$

$$\text{Boulder } 3.0 \times 3.0 \times 3.0 = 1.0$$

$$375+75$$

$$\begin{array}{r} -1.0 \\ 8.5 \end{array} \quad -3.5 \quad \begin{array}{r} -26.6 \\ 46.9 \end{array}$$

Areas. Cub. Yds.
Exc. Emb. Exc. Emb.

00

00

6.8

36.94

15.9

2020

11.9

14.1

11.9

56.19

1131.6

1301.74

1523.0

1048.08

568.2

00

179.24

0.5

54.7

420

116.30

5.6

1.5

219.5 Sta 375+30 to 375+70

00

278.88

Exc 8.6 Cu. Solid Rock

1.0

43.7

8.6

193.55

134.3

3711.8

Sta	Grade.	L	C	R
376		$\frac{-0.4}{7.6}$	-4.1	$\frac{-9.9}{21.9}$

+30	-3.0	$\frac{-0.8}{8.2}$	-3.4	$\frac{-7.6}{18.4}$
-----	------	--------------------	------	---------------------

+46		$\frac{0.0}{8.0}$	-1.7	$\frac{-4.2}{13.3}$
-----	--	-------------------	------	---------------------

+50		$\frac{+4.4}{9.1}$	+3.0	$\frac{0.0}{8.0}$
-----	--	--------------------	------	-------------------

+92 0468679

377		$\frac{+14.5}{11.7}$	+12.1	$\frac{+9.5}{10.4}$
-----	--	----------------------	-------	---------------------

+30	-3.17	$\frac{+18.1}{12.5}$	+14.8	$\frac{+12.0}{11.0}$
-----	-------	----------------------	-------	----------------------

+60		$\frac{+20.7}{13.2}$	+15.7	$\frac{+12.7}{11.2}$
-----	--	----------------------	-------	----------------------

+80		$\frac{+20.7}{13.2}$	+17.6	$\frac{+14.7}{11.7}$
-----	--	----------------------	-------	----------------------

+92 0468392

378		$\frac{+22.8}{13.7}$	+19.8	$\frac{+17.5}{12.4}$
-----	--	----------------------	-------	----------------------

378+35	-2.86	$\frac{+24.9}{14.2}$	+24.2	$\frac{+19.7}{12.9}$
--------	-------	----------------------	-------	----------------------

Areas. Cub. Yds.
Exc. Emb. Exc. Emb.

96.53	3711.8	Sta 373+90 to 376+50
	86.9	Emb 3820.0 Cy.
59.92	3243.1	Cy. made from
	17.2	Cut & swell on borrow
00	32.81	mat'l balance 576.9
	5.3	4.1 Borrowed from Pit on
43.25	00	3820.0
	5 53.5	R 377+10, Class
	252.7	1/3 Lo. Rock 192.3 Cy.
229.71		2/3 S. Rock 384.6 "
	5 43.3	
	291.1	Haul 180' = 1039 Haul
294.30		
	5 128.8	Sta 376+40 to 379+35
	355.1	Exc. 435.95
325.14		Class Slip/Loose Rock = 386.6 Cy.
	5 101.9	
	254.0	Balance Cut Solid " = 3972.9 "
360.72		Haul 181. So. free
	5 165.2	
	289.0	" 468 N. "
419.59		" 410 from 377+05 to 377+45 = 657.
	5 353.9	
	600.1	31304 378+10 to 380+20 = 6573
		Total Haul 7230
506.31		
	268.3	
	5 111.6	
	3262.8	

16/6

Sta	Grade.	L.	C.	R
378+50		$\frac{+246}{14.2}$	+21.3	$\frac{+18.7}{12.7}$

378+85		$\frac{+14.6}{11.7}$	+13.6	$\frac{+12.6}{11.2}$
--------	--	----------------------	-------	----------------------

379+20		$\frac{+6.4}{9.6}$	+5.8	$\frac{+4.1}{9.0}$
--------	--	--------------------	------	--------------------

+30		$\frac{+1.6}{8.4}$	+1.1	$\frac{0.0}{8.0}$
-----	--	--------------------	------	-------------------

+35		$\frac{0.0}{8.0}$	-1.0	$\frac{-1.3}{9.0}$
-----	--	-------------------	------	--------------------

+80

Box Culvert $2 \times 2\frac{1}{2} \times 6.8 = 2238 \text{ BM}$

379+75		$\frac{-19.9}{36.9}$	-17.1	$\frac{-19.6}{36.4}$
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380+10		$\frac{-16.0}{31.0}$	-29.0	$\frac{-31.0}{53.5}$
--------	--	----------------------	-------	----------------------

+30		$\frac{-10.3}{22.5}$	-20.5	$\frac{-28.0}{25.0} \quad \frac{-33.8}{53.7}$
-----	--	----------------------	-------	---

+50		$\frac{-8.1}{19.2}$	-15.0	$\frac{-31.0}{53.5}$
-----	--	---------------------	-------	----------------------

380+60		$\frac{-8.8}{20.2}$	-14.3	$\frac{-30.8}{53.2}$
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- 286

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.

45969		32628	
		5	171.1
			469.4

26452		5	30.6
			233.6

9594			20.6
------	--	--	------

1542	00		
------	----	--	--

		0.9	0.8
		4189.0	
00	1305	1705.56	
		4359.5	

576.3 Sta 379+30 to 384+70

764.97

Emul 557.55 C.H.

1396.6 Made from Cuts.

1389.85

894.9

1026.52

632.8

682.10

249.2

663.81

719.9
4470.5

476

Sta	Grade.	L	C	R
380	+85	$\frac{-115}{24.3}$	-19.4	$\frac{-30.3}{52.5}$

381	+30	$\frac{-4.9}{14.4}$	-8.1	$\frac{-18.3}{34.5}$
-----	-----	---------------------	------	----------------------

	+45	$\frac{0.0}{8.0}$	-2.3	$\frac{-13.7}{27.6}$
--	-----	-------------------	------	----------------------

	+70	$\frac{+6.7}{9.7}$	+3.6	$\frac{0.0}{8.0}$
--	-----	--------------------	------	-------------------

	+75	$\frac{+7.4}{9.9}$	+4.3	$\frac{+0.5}{8.2}$
--	-----	--------------------	------	--------------------

	+85	$\frac{+5.4}{9.4}$	+2.2	$\frac{0.0}{8.0}$
--	-----	--------------------	------	-------------------

382		$\frac{0.0}{8.0}$	-3.5	$\frac{-7.3}{18.0}$
-----	--	-------------------	------	---------------------

	+20	$\frac{+2.3}{8.6}$	$\frac{0.0}{3.0}$	-6.1 $\frac{-18.0}{34.0}$
--	-----	--------------------	-------------------	---------------------------

+21 $\frac{1}{2}$ 04671.38

	+55	$\frac{+8.8}{10.2}$	+3.7	$\frac{0.0}{8.0}$
--	-----	---------------------	------	-------------------

382	+75	$\frac{+10.6}{10.7}$	+6.6	$\frac{+1.4}{8.4}$
-----	-----	----------------------	------	--------------------

-2.86

-3.17

Areas. Cub. yds.
Exc. Emb. Exc. Emb.

89126

4470.5

975.4

279.25

102.2

00

8889

18.1

27.4

5866

00

5575.5

12.1 Sta 38445 to 387455 Exc 1767.0 Ck.

71.72

Class Slip to 1/2 Lo Rock 126.0

20.8 Balance Cut Solid 1641.0

40.74

00

haul 248. So 2 alongside from

7.5

4.1 " 170.4 " "

00

71.05

" 740 from 8445 to 81410 = 241.0

" 300 " 85460 to 87430 = 510

0.9

93.7

Total haul 2920

3.45

181.95

416.9

786 Sta 38485 to 382455

6887

00

176.7

Exc 176.7 Ck. made

5 22.1

66.6

from Cut.

111.03

70.2
10.5
275.7

8616

Sta	Grade.	L.	P.	R
382+90	-317	$\frac{+11.1}{10.8}$	$+8.8$	$\frac{+2.9}{8.7}$
		Boulders $\frac{30 \times 40 \times 6.0}{3.0 \times 40 \times 5.0} = 12.0$ $4.0 \times 6.0 \times 8.0$		
383+05		$\frac{+7.8}{10.0}$	$+3.1$	$\frac{0.0}{8.0}$
+114	04668.53			
+40		$\frac{+2.2}{8.6}$	$\frac{0.0}{4.0}$	$\frac{-10.3}{22.5}$
+70		$\frac{+11.0}{10.8}$	$+4.9$	$\frac{0.0}{8.0}$
+80		$\frac{+9.1}{10.3}$	$+4.7$	$\frac{+0.9}{8.2}$
383+90	-350	$\frac{+7.0}{9.8}$	$+4.0$	$\frac{0.0}{8.0}$
384+15		$\frac{+8.3}{10.1}$	$\frac{0.0}{4.0}$	$\frac{-12.5}{25.8}$
+35		$\frac{+12.5}{11.1}$	$+4.6$	$\frac{0.0}{8.0}$
+70		$\frac{+6.4}{9.6}$	$+2.3$	$\frac{0.0}{8.0}$
385		$\frac{+13.5}{11.4}$	$+8.1$	$\frac{+3.1}{8.8}$

Areas. Cub. Yds.
Exc. Emb. Exc. Emb.

141.80 $\begin{matrix} 275.7 \\ 68 \\ 120 \\ 558 \end{matrix}$

59.10 00 $\begin{matrix} 30.3 \\ 41.2 \end{matrix}$

24.2 Sta 383105 to 383170 ✓

4.40 55.92

Emb 44.9 E.Y. ✓

$\begin{matrix} 12.6 \\ 52.5 \end{matrix}$

20.7 made from cut.

90.06 00

44.9 ✓

$\begin{matrix} 14.2 \\ 32.1 \end{matrix}$

83.48

$\begin{matrix} 77 \\ 27.2 \end{matrix}$

63.60 00

$\begin{matrix} 12.0 \\ 51.3 \end{matrix}$

5.8 Sta 383190 to 384135 ✓

47.30 18.75

Emb 10.4 E.Y. made

$\begin{matrix} 10.0 \\ 52.3 \end{matrix}$

46 from cut.
10.4 ✓

93.93 00

$\begin{matrix} 12.8 \\ 90.6 \end{matrix}$

45.84

$\begin{matrix} 26.3 \\ 107.8 \end{matrix}$

148.21

$\begin{matrix} 189.7 \\ 23.4 \\ 1144.3 \end{matrix}$

1616

Sta	Grade.	L	C	R
385+45		$\frac{+9.1}{10.3}$	+4.7	$\frac{0.0}{8.0}$

+55	-3.50	$\frac{+8.2}{10.1}$	+4.0	$\frac{0.0}{8.0}$
-----	-------	---------------------	------	-------------------

+70 04659.48

+80		$\frac{+11.0}{10.8}$	+3.5	$\frac{0.0}{8.0}$ -1.3 9.0
-----	--	----------------------	------	-------------------------------

+95		$\frac{+9.4}{10.4}$	+5.5	$\frac{+2.0}{8.0}$ 0.0 8.0
-----	--	---------------------	------	-------------------------------

386		$\frac{+9.3}{10.3}$	$\frac{+7.2}{1.0}$	+12	$\frac{0.0}{2.0}$	-3.2 11.8
-----	--	---------------------	--------------------	-----	-------------------	--------------

Boulder 4.0x7.0x9.0 = 9.3

+15	-3.26	$\frac{+7.9}{10.0}$	0.0	-13.2 2.5	-17	$\frac{26.8}{2.0}$
-----	-------	---------------------	-----	--------------	-----	--------------------

+40		$\frac{+2.5}{8.6}$	0.0	-29.8 3.0	-0.3	$\frac{51.7}{1.0}$
-----	--	--------------------	-----	--------------	------	--------------------

+50		$\frac{+4.2}{9.1}$	+1.0	$\frac{0.0}{1.0}$	-15.5 3.0	30.3
-----	--	--------------------	------	-------------------	--------------	------

+65		$\frac{+7.1}{9.8}$	+2.7	$\frac{0.0}{4.0}$	-2.4 10.6	10.6
-----	--	--------------------	------	-------------------	--------------	------

Boulder 2.0x5.0x10.0 = 3.7

386+85		$\frac{+6.7}{9.7}$	0.0	$\frac{-11.4}{2.4}$	2.4	2.4
--------	--	--------------------	-----	---------------------	-----	-----

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
79.40		1144.3	
		S 2.0	
		27.5	
69.00	00		
		S 14.9	
		65.1	0.4
71.65	1.30		
		S 16.3	
		46.6	0.2
96.20	.00		
		S 3.2	
		15.5	0.5
71.43	8.00	S 6.5	
		9.3	
		25.9	22.0
217.3	71.11		
		S 7.9	
		13.0	85.0
6.45	112.51		
		S 0.2	
		5.2	29.4
21.85	46.50		
		S 1.1	
		19.1	13.9
47.03	36.0		
		3.7	
		S 27.3	16.1
		1.4	
26.80	39.90		
		S 25.1	203.2
		4.5	
		12.85.6	37.07

1616

Sta Grade.

L. C. R.

$$387+20 \quad \begin{array}{r} +4.0 \\ 9.0 \end{array} \quad \begin{array}{r} 00 \\ 2.0 \end{array} \quad -1.5 \quad \begin{array}{r} -6.5 \\ 2.0 \end{array} \quad \begin{array}{r} -33.4 \\ 67.1 \end{array}$$

$$+40 \quad \begin{array}{r} +8.9 \\ 10.2 \end{array} \quad \begin{array}{r} +3.4 \\ 6.0 \end{array} \quad \begin{array}{r} 0.0 \\ 1.5 \end{array} \quad -4.6 \quad \begin{array}{r} -10.6 \\ 9.0 \end{array} \quad \begin{array}{r} -43.5 \\ 72.3 \end{array}$$

$$+55 \quad \begin{array}{r} 0.0 \\ 8.0 \end{array} \quad -5.1 \quad \begin{array}{r} -3.6 \\ 6.0 \end{array}$$

$$387+95 \quad \begin{array}{r} -1.0 \\ 8.5 \end{array} \quad -5.1 \quad \begin{array}{r} -27.6 \\ 48.4 \end{array}$$

$$388+10 \quad \begin{array}{r} -3.6 \\ 12.4 \end{array} \quad -11.0 \quad \begin{array}{r} -30.8 \\ 63.2 \end{array}$$

$$+40 \quad \begin{array}{r} -3.2 \\ 11.8 \end{array} \quad -9.1 \quad \begin{array}{r} -33.6 \\ 67.4 \end{array}$$

$$+55 \quad \begin{array}{r} 0.0 \\ 8.0 \end{array} \quad -4.0 \quad \begin{array}{r} -2.6 \\ 4.9 \end{array}$$

$$+65 \quad \begin{array}{r} +0.7 \\ 8.2 \end{array} \quad \begin{array}{r} 0.0 \\ 7.0 \end{array} \quad -6.0 \quad \begin{array}{r} -20.7 \\ 38.1 \end{array}$$

$$389 \quad \begin{array}{r} +1.7 \\ 9.9 \end{array} \quad +1.9 \quad \begin{array}{r} 0.0 \\ 3.0 \end{array} \quad \begin{array}{r} -24.4 \\ 53.6 \end{array}$$

Boulders $\begin{array}{l} 3.0 \times 4.0 \times 6.0 \\ 3.0 \times 6.0 \times 7.0 \\ 4.0 \times 6.0 \times 7.0 \end{array} = 13.6$

$$389+17 \quad \begin{array}{r} +4.7 \\ 9.2 \end{array} \quad +3.6 \quad \begin{array}{r} 0.0 \\ 4.5 \end{array} \quad \begin{array}{r} -14.0 \\ 11.0 \end{array} \quad \begin{array}{r} -24.2 \\ 43.3 \end{array}$$

Areas. Cub yds.
Exc. Emb Exc. Emb.

12.00 273.59 1485.6 370.7
 5 3.7
 13.2 234.8

236.9 360.39
 5 1.5
 44 184.0

00 301.95 1508.4
 258.6 54
 176.70 ✓
 405.3

245.19

201.8

481.20

513.8

443.66

179.6

00 202.90

0.1 76.0 Sta 388+55 to 389+25

0.35 207.75 Exc. 90.5 Ch. Solid Rock

28.1 166.3 Haul opposite fm

430.5 488.0

136
27.2 86.6

43.46 223.20

4.3 85.3
73.3 2503.2 ✓

X64

Sta	Grade	L	C	R
389+25		$\frac{00}{80}$	$\frac{-15.2}{120}$	$\frac{-26.0}{46.0}$

+30		$\frac{-4.3}{13.5}$	$\frac{-7.5}{-}$	$\frac{-28.9}{50.5}$
-----	--	---------------------	------------------	----------------------

+50		$\frac{00}{8.0}$	$\frac{-1.9}{-}$	$\frac{-24.8}{44.2}$
-----	--	------------------	------------------	----------------------

+55		$\frac{+1.8}{8.5}$	$\frac{+2.7}{-}$	$\frac{00}{8.0}$
-----	--	--------------------	------------------	------------------

+63⁴ 04646.66

+65		$\frac{+7.5}{9.9}$	$\frac{+7.9}{-}$	$\frac{+8.3}{10.1}$
-----	--	--------------------	------------------	---------------------

Boulder 20x5.0x5.0 = 1.9

+75		$\frac{+12.5}{11.1}$	$\frac{+8.2}{-}$	$\frac{+0.2}{8.1}$
-----	--	----------------------	------------------	--------------------

389+95		$\frac{+10.4}{11.6}$	$\frac{+14.6}{-}$	$\frac{+8.1}{10.0}$
--------	--	----------------------	-------------------	---------------------

390+10		$\frac{+13.5}{11.4}$	$\frac{+9.9}{-}$	$\frac{+9.4}{10.4}$
--------	--	----------------------	------------------	---------------------

Boulder 30x5.0x7.0 = 3.9

+20		$\frac{+14.4}{11.6}$	$\frac{+8.9}{-}$	$\frac{+5.1}{9.3}$
-----	--	----------------------	------------------	--------------------

390+50		$\frac{+11.9}{11.0}$	$\frac{+11.3}{-}$	$\frac{+6.1}{9.5}$
--------	--	----------------------	-------------------	--------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
00	352.60	73.3	2503.2
		5.4	17.2
		90.5	
	356.20		65.6 Sta 385+55 to 389+55
			Emb 2759.6 cu.
			182.4 made from cuts
00	136.39	0.1	
		1.8	8.4
29.48	00	2759.6	
		11.8	
		31.8	
142.20			Sta 389+50 to 392+10 Exc 133.2
		1.9	
		50.3	Class Slip 1/2 Loose Rock 112 cu.
		19.8	
129.52			Balance Cut Solid Rock 1219.0
		36.0	
		139.7	Haul 301 So far
247.68			" 22.6 N "
		33.0	
		124.2	" 880 from 390+45 to 388+15 = 202.4
199.51			
		3.9	
		68.6	
		14.4	
171.00			
		47.3	
		199.4	
187.83			
		76.2	
		18.4	
		878.6	

8616

Sta	Grade.	L	C	R
390+65		$\frac{+9.4}{10.4}$	+4.7	$\frac{+1.2}{8.3}$

390+80		$\frac{+10.3}{10.6}$	+7.5	$\frac{+4.6}{9.2}$
--------	--	----------------------	------	--------------------

391+05		$\frac{+8.2}{10.1}$	+3.3	$\frac{0.0}{8.0}$
--------	--	---------------------	------	-------------------

+40		$\frac{+6.6}{9.7}$	00	$\frac{-7.8}{18.7}$
-----	--	--------------------	----	---------------------

+44 04640.34

+70		$\frac{+6.8}{9.7}$	+28	$\frac{0.0}{45}$	$\frac{-14.2}{28.3}$
-----	--	--------------------	-----	------------------	----------------------

391+95		$\frac{+4.6}{9.2}$	$\frac{0.0}{2.0}$	-2.0	$\frac{-17.4}{23.0}$	$\frac{-24.2}{43.3}$
--------	--	--------------------	-------------------	------	----------------------	----------------------

392+10		$\frac{0.0}{8.0}$	-7.0	$\frac{-26.2}{46.3}$
--------	--	-------------------	------	----------------------

+34 04637.34

+50		$\frac{0.0}{8.0}$	$\frac{-5.4}{4.0}$	-7.0	$\frac{-23.8}{42.7}$
-----	--	-------------------	--------------------	------	----------------------

+60		$\frac{0.0}{8.0}$	-3.2	$\frac{-4.6}{13.9}$
-----	--	-------------------	------	---------------------

392+75		$\frac{+5.5}{9.4}$	+2.0	$\frac{0.0}{2.0}$	$\frac{-8.4}{19.6}$
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Areas.		Cub yds.	
Exc.	Emb.	Exc.	Emb.
86.35		878.6	
		5	66
			61.2
133.85		5	15.6
			91.0
62.67	00	5	15.2
			57.7
			11.8
26.40	27.30	5	4.3
			40.8
			25.0
47.08	17.75	5	19
			28.2
			104.6
13.80	208.11		
		2.5	136.1
		1203.6	
00	281.75	127.6	59
		1331.2	
			407.5
	268.35		
			59.2
00	51.14		
		6.2	20.0
33.40	21.00	31.6	10.7
		37.8	774.9

Sta	Grade.	L.	C.	R
393		$\frac{+5.8}{9.5}$	$\frac{00}{6.0}$	$\frac{-4.2}{13.3}$
+15		$\frac{+3.2}{8.8}$	$\frac{00}{2.0}$	$\frac{-3.2}{11.8}$
+25		$\frac{00}{8.0}$	-2.6	$\frac{-7.3}{18.0}$
+30		$\frac{-0.6}{7.9}$	-4.7	$\frac{-9.8}{21.7}$
+40	-3.18	$\frac{00}{8.0}$	-2.3	$\frac{-14.0}{28.0}$
+50		$\frac{+3.0}{8.8}$	$\frac{00}{3.0}$	$\frac{-9.6}{21.4}$
+75		$\frac{+1.6}{8.4}$	$\frac{00}{4.0}$	$\frac{-7.4}{18.1}$
393+90		$\frac{00}{8.0}$	-1.4	$\frac{-6.8}{17.2}$
394+05		$\frac{-2.2}{10.3}$	$\frac{-2.8}{7.0}$	$\frac{-4.6}{5.0}$
394+20		$\frac{-0.6}{7.9}$	-1.6	$\frac{-4.2}{13.3}$

Areas.		Cub yds.		
Exc.	Emb.	Exc.	Emb.	
34.83	210	37.8	774.9	Sta 392+60 to 393+25
		14.4	2.8	Exc 76.7 @ 4. S.R.
17.12	800			Hand alongside frst
		2.1	12.5	
		54.3		
00	59.36	224.59		
		76.7	15.3	
	105.96			
			36.3	
00	90.40			
		0.9	25.2	
7.50	43.80			
		5.0	40.9	
3.20	52.48			Sta 393+40 to 393+90
		0.6	23.3	Exc 12.7 @ 4. S.R.
		6.5		
00	41.40	6.2	5.9	Hand opposite frst
		12.7	43.8	
	116.22			
			41.7	
	33.76		8.1	
			102.48	

Sta grade.
+202 04631.42
394+30

L	C	R
$\frac{00}{8.0}$	-0.5	$\frac{-16}{9.4}$

Boulders $2.0 \times 3.0 \times 6.0$
 $2.0 \times 2.0 \times 10.0 = 28$

+40

$\frac{+16}{8.4}$	+0.9	$\frac{00}{8.0}$
-------------------	------	------------------

+60

-33x

$\frac{00}{8.0}$	-2.4	$\frac{-4.2}{13.3}$
------------------	------	---------------------

394+80

$\frac{-2.4}{10.6}$	-4.6	$\frac{-9.2}{20.8}$
---------------------	------	---------------------

394+80

Box Culvert $2 \times 3\frac{1}{2} \times 32 = 1292 \text{ BM}$

395+10

$\frac{+1.8}{9.7}$	-4.0	$\frac{-13.0}{26.5}$
--------------------	------	----------------------

+102 04628.42

+25

$\frac{00}{8.0}$	-1.7	$\frac{-6.4}{16.6}$
------------------	------	---------------------

+45

$\frac{+5.6}{9.4}$	+3.4	$\frac{00}{8.0}$
--------------------	------	------------------

+65

-249

$\frac{+10.0}{10.5}$	+7.4	$\frac{+6.2}{9.6}$
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+85

$\frac{+14.2}{11.6}$	+11.8	$\frac{+10.5}{10.6}$
----------------------	-------	----------------------

396

$\frac{+12.4}{11.1}$	+10.5	$\frac{+10.0}{10.5}$
----------------------	-------	----------------------

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
00	995	1024.8	Sta 394+30 to 394+60
		2.8	
		1.7	12 Exc 16.8 C.Y. S.R.
1378	00		Haul opposite pm
		3.4	10.0
		7.9	
00	4026	8.9	59
		16.8	
		56.7	
	11282		Sta 391+05 to 395+45
		131.7	Emb 1281.6 C.Y.
	12426		made from cuts.
		46.5	
00	4331		
	5	3.3	
		12.9	10.7
		1281.6	
5198	00		
	5	16.2	
		70.8	
13917			
	5	31.7	
		136.6	
22978			
	5	29.3	
		120.2	
20300			
		174.8	
		36.3	
		632.1	

Sta	Grade.	L	C	R
396	+25	$\frac{+112}{10.8}$	+9.6	$\frac{+76}{9.9}$

+50	$\frac{+140}{11.5}$	+11.2	$\frac{+84}{10.1}$
-----	---------------------	-------	--------------------

397	$\frac{+116}{10.9}$	+8.2	$\frac{+6.4}{9.6}$
-----	---------------------	------	--------------------

Boulder $2.5 \times 4.0 \times 7.0 = 2.6$

+25	$\frac{+9.0}{10.4}$	+6.0	$\frac{+3.8}{9.0}$
-----	---------------------	------	--------------------

Boulder $2.0 \times 4.0 \times 5.0 = 1.5$

+50	$\frac{+7.8}{10.0}$	+4.4	$\frac{+1.8}{8.5}$
-----	---------------------	------	--------------------

Boulder $2.0 \times 6.0 \times 6.0 = 2.7$

+75	$\frac{+3.8}{9.0}$	+1.0	$\frac{0.0}{8.0}$
-----	--------------------	------	-------------------

397+95	$\frac{0.0}{8.0}$	-1.8	$\frac{-4.0}{13.0}$
--------	-------------------	------	---------------------

Box Culvert $2 \times 2\frac{1}{2} \times 28 = 9.0$ BN

398+20	$\frac{-1.6}{9.4}$	-2.2	$\frac{-7.8}{18.7}$
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398+25			
--------	--	--	--

+50	$\frac{0.0}{8.0}$	-2.6	$\frac{-11.0}{23.5}$
-----	-------------------	------	----------------------

398+70	$\frac{+3.0}{8.8}$	0.0	$\frac{-3.7}{12.5}$
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-349

Areas.

Cub. yds.

Exc.

Emb.

Exc.

Emb.

174.56

S

632.1

Sta 395 to 397 + 9 Sta 178.6

46.6

178.3 class Slips Lo Rock 328.54

210.56

S

96.4

Balance Solid " 1453.1

339.4 Haul 16.4 So far

156.05

" 70 N. "

26

S

1236

820 from 396 + 206 397 + 40 = 3116

35.0

111.00

" 70 " 397 + 40 to 398 + 50 = 77

15

S

88.0

" 238 " 397 + 15 to 400 + 80 = 869

25.1

79.10

" 293 " 396 + 80 to 407 + 45 = 2907

2.7

S

476

Total Haul 6969

8.0

23.70

00

S

06

59

8.1

00

32.90

16334

1482

1781.6

53.7 Sta 397 + 75 to 399

6381

Emb 16.71 cu.

66.3 made from cuts

00

79.45

3.0

34.2

120.0

12.95

33.1

36.1

48

167.1

Sta Grade.
 +994 4614.84
 399

L C R
 $\frac{+6.2}{9.6}$ +2.6 $\frac{0.0}{8.0}$

+25 -3.0

$\frac{+3.6}{8.9}$ +1.2 $\frac{0.0}{8.0}$

+50

$\frac{+3.6}{8.9}$ +1.2 $\frac{0.0}{8.0}$

+83⁴ 4612.07

+85

$\frac{+2.2}{8.6}$ 00 $\frac{-1.8}{9.7}$

400

$\frac{+2.8}{8.7}$ 00 $\frac{-4.8}{14.2}$

+10

$\frac{0.0}{8.0}$ -3.0 $\frac{-6.4}{16.6}$

+25 -3.0

$\frac{0.0}{8.0}$ -2.6 $\frac{-12.4}{25.6}$

+40

$\frac{+2.0}{8.5}$ $\frac{0.0}{3.0}$ -1.6 $\frac{-8.2}{19.3}$

+60

$\frac{0.0}{8.0}$ -3.2 $\frac{-16.8}{32.2}$

400+80

$\frac{-2.4}{10.6}$ -5.3 $\frac{-21.0}{38.5}$

Areas.		Cub. yds.	
Exc.	Emb.	Exc.	Emb.
47.68	00	36.1	Sta 398+50 to 400+60
		33.4	Exc 201.0 [✓] Cyl. Solid Rock
24.54			Haul 60 ft in free
		25.9	70 from 399 to 400+40 = 98
31.30	00		
		26.0	27
8.80	6.30		
		5.5	6.4
11.20	16.80		
		1.5	14.1
00	59.30	128.3	
		67.4	59
		195.7	✓
			40.7
00	87.08		
		0.9	37.1
5.00	46.54		
		1.2	62.9
		2.1	
00	123.12	3.2	59
		5.3	✓
			124.1
	212.02		
		144.4	
		432.4	

Sta	Grade.	L.	C.	R
401	+05	$\frac{00}{8.0}$	-23	$\frac{-15.8}{30.7}$

+30	$\frac{+2.0}{8.5}$	$\frac{0.0}{5.0}$	-1.2	$\frac{-2.0}{5.0}$	$\frac{-15.2}{29.8}$
-----	--------------------	-------------------	------	--------------------	----------------------

+50	$\frac{+7.2}{9.8}$	$\frac{+4.0}{8.0}$	+1.0	$\frac{0.0}{2.0}$	$\frac{-5.8}{15.7}$
-----	--------------------	--------------------	------	-------------------	---------------------

+60	$\frac{+10.0}{10.5}$	$\frac{+1.0}{3.0}$	+0.6	$\frac{0.0}{2.0}$	$\frac{-7.2}{17.8}$
-----	----------------------	--------------------	------	-------------------	---------------------

+60' 04606.60

+75	$\frac{+5.0}{9.3}$	00		$\frac{-7.2}{17.8}$	
-----	--------------------	----	--	---------------------	--

401+95	$\frac{+4.6}{9.2}$	+0.7	$\frac{0.0}{1.0}$	$\frac{-3.0}{11.5}$	
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402+441 Back = 4603.83	$\frac{+4.0}{9.0}$	00		$\frac{-4.0}{13.0}$	
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402+75	$\frac{0.0}{8.0}$	-3.4		$\frac{-21.0}{38.5}$	
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+79' 04602.24

403+05	$\frac{+1.5}{8.4}$	$\frac{0.0}{5.0}$	-3.2	$\frac{-21.0}{38.5}$	
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403+53	$\frac{+5.6}{9.4}$	+2.0	$\frac{0.0}{5.0}$	$\frac{-16.0}{31.0}$	
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Areas.		Cub. yds.	
Exc	Emb.	Exc.	Emb.
00	9980	4324	
		09	70.0
3.00	5100		
		10.2	24.3
2460	1450		
		10.4	6.0
3175	1800		
		14.4	12.0
2000	2520		
		15.5	12.7
2197	900		
		34.5	20.9
16.00	1400		
		8.1	126.4
00	15289		
		0.8	164.4
225	14310		
		34.7	141.4
36.80	1600	43.7	4.9
		173.2	1015.4

Sta	Grade	L	C	R
403	+78	$\frac{+124}{111}$	$\frac{+30}{30}$	$\frac{00}{80}$

+90	$\frac{+186}{127}$	$\frac{+143}{50}$	$\frac{+100}{40}$	$\frac{00}{49}$	$\frac{-41}{50}$	$\frac{131}{131}$
-----	--------------------	-------------------	-------------------	-----------------	------------------	-------------------

404	$\frac{+206}{132}$	$\frac{+180}{40}$	$+49$	$\frac{00}{60}$	$\frac{-136}{274}$
-----	--------------------	-------------------	-------	-----------------	--------------------

+13	$\frac{+184}{126}$	$\frac{+148}{40}$	$+25$	$\frac{00}{40}$	$\frac{-128}{262}$
-----	--------------------	-------------------	-------	-----------------	--------------------

+25	$\frac{+142}{116}$	$\frac{+144}{80}$	$\frac{+70}{50}$	$+33$	$\frac{00}{80}$
-----	--------------------	-------------------	------------------	-------	-----------------

+35	$\frac{+122}{111}$	$+78$	$\frac{+30}{88}$
-----	--------------------	-------	------------------

+50	$\frac{+122}{111}$	$+85$	$\frac{+53}{93}$
-----	--------------------	-------	------------------

+75	$\frac{+94}{104}$	$+68$	$\frac{+29}{87}$
-----	-------------------	-------	------------------

405	$\frac{+78}{100}$	$\frac{00}{20}$	00	$\frac{00}{80}$
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+25	$\frac{+77}{99}$	00	$\frac{-80}{190}$
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Areas		Cub yds.		
Exc	Emb	Exc	Emb	
5755	00	173.2	1015.4	Sta 399+50 to 404+25
		43.3	0.6	Emb 1027.0 @ 4.
137.16	4.10			702.3 made from
		59.6	2.0	Cuts balance 324.7
184.50	6.80			borrowed from Pet on
		78.1	6.2	L 399+50, Class
140.04	1920			$\frac{1}{3}$ Loose Rock 108.2 @ 4.
		52.7	28 $\frac{2}{3}$	Solid " 216.5
			1027.0	
96.97	00			
		Sip 36.1		
		43.6		Sta 401+05 to 406+05 Ex. 1208.7 @ 4.
138.41				Class Solid Rock
		S. 79.5		
		82.0		Haul 173.6 So. + alongside free
156.70				" 130. N. "
		S. 94.8		
		125.4		" 730' from 404+40 to 406+55 = 1570
114.14				
		63.7		
2340	00			
		25.1	13.0	
30.80	28.00			
		43.2	13.0	
		1000.3	26.0	

Sta	Grade	L	C	R
405	+50	$\frac{+80}{100.0}$	+34	$\frac{00}{8.0}$

405	+75	$\frac{+21}{8.5}$	$\frac{00}{3.0}$	-22	$\frac{-16.0}{31.0}$
-----	-----	-------------------	------------------	-----	----------------------

406	+05	$\frac{00}{8.0}$	-56	$\frac{-18.2}{34.3}$
-----	-----	------------------	-----	----------------------

+30	$\frac{-3.4}{12.1}$	$\frac{-3.3}{6.0}$	-86	$\frac{-15.7}{30.5}$
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406	+65	$\frac{-4.2}{13.3}$	-76	$\frac{-12.4}{25.6}$
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407	+13	$\frac{-2.7}{11.0}$	-45	$\frac{-6.5}{16.7}$
-----	-----	---------------------	-----	---------------------

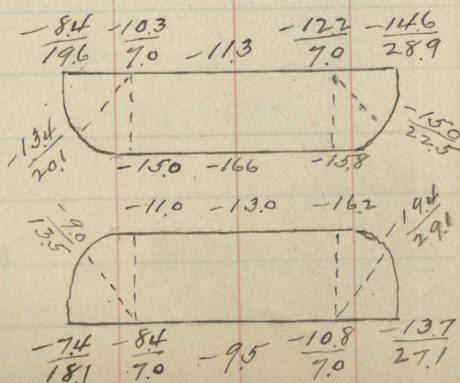
+25	$\frac{-4.1}{13.2}$	-52	$\frac{-9.0}{20.5}$
-----	---------------------	-----	---------------------

407	+45 HB	$\frac{-8.4}{19.6}$	$\frac{-10.3}{7.0}$	-113	$\frac{-12.2}{7.0}$	$\frac{-14.6}{28.9}$
-----	--------	---------------------	---------------------	------	---------------------	----------------------

+70 Toe

+94.5 Toe

408+14 HB



Areas Cub Yds.
Exc Emb Exc Emb

62.60 00 1000.3 260

31.4 28.8

5.25 93.40

19 153.1

00 182.14 1033.6
175.150.

1208.7 187.8 Sta 405 to 407 + 70

223.57

Emb 1342.8 Cy.

278.4 made from Cuts

205.92

267.1

94.53

50.7

133.47

181.4

356.33

169.5
1342.8

132.6

288.86

242.7
375.3

Sta	Grade	L	C	R
408+50		$\frac{-2.5}{10.7}$	-3.4	$\frac{-6.0}{16.0}$

+75	Siding R B on Left	$\frac{0.0}{8.0}$	-2.0	$\frac{-3.4}{12.1}$
-----	--------------------------	-------------------	------	---------------------

408+90	8.0	$\frac{+2.8}{8.7}$	+1.1	$\frac{0.0}{8.0}$
--------	-----	--------------------	------	-------------------

409+25	8.4	$\frac{+11.8}{11.4}$	+7.9	$\frac{+6.7}{9.7}$
--------	-----	----------------------	------	--------------------

+50	9.8	$\frac{+12.4}{12.9}$	+6.3	$\frac{+2.9}{8.7}$
-----	-----	----------------------	------	--------------------

Boulders $\frac{5 \times 12 \times 13}{3 \times 4 \times 5} = 33.8$ cy
 $\frac{3 \times 4 \times 6}{3 \times 4 \times 6}$

+60	10.4	$\frac{+15.2}{14.2}$	$\frac{+15.0}{12.0}$	$\frac{+5.4}{4.0}$	$\frac{+2.3}{4.1}$	$\frac{+2.3}{8.6}$
-----	------	----------------------	----------------------	--------------------	--------------------	--------------------

409+75	11.8	$\frac{+7.2}{13.6}$	+3.8	$\frac{0.0}{8.0}$
--------	------	---------------------	------	-------------------

410+05	15.0	$\frac{+12.2}{18.1}$	$\frac{+6.4}{8.0}$	$\frac{+6.5}{8.0}$	$\frac{0.0}{3.5}$	$\frac{-3.4}{6.0}$	$\frac{0.0}{12.1}$
--------	------	----------------------	--------------------	--------------------	-------------------	--------------------	--------------------

410+40	18.2	$\frac{+12.2}{21.3}$	$\frac{+5.3}{8.0}$	$\frac{+5.7}{8.0}$	$\frac{0.0}{+3.8}$	$\frac{0.0}{8.0}$
--------	------	----------------------	--------------------	--------------------	--------------------	-------------------

R B on
Right

410+40 Go Ahead =	18.2	$\frac{+12.2}{21.3}$	$\frac{+5.3}{8.0}$	$\frac{+5.7}{8.0}$	$\frac{0.0}{+3.8}$	$\frac{0.0}{8.0}$	$\frac{-1.8}{12.2}$	$\frac{-10.2}{20.2}$	27.2
412+87 Back Up									

Tail

Areas Cub yds.
Exc. Emb. Exc. Emb.

75.14

375.3

Sta 407+94 to 408+90

49.6 Emb 430.8 Cu yds.

00

32.00

made from Cut.

1.3

59

430.8 ✓

20.39

00

Slip 21.2

116.7

Sta 408+95 to 412+60

1602.104

159.71

Class Slip Loose Rock 234.5

s. 24.1

139.0

Balance Solid " 1367.6

140.40

s.

15.0

Haul 170. So free

338

50.4 " 290 N. "

131.77

s.

14.1

" 190 from 402+40 to 408+15 = 247

59.8 " 380 " 410+40 to 412+10 = 646

83.52

00

waste 369 ~ Total Haul 893

s.

28.3

116.1

0.9

125.52

1.70

s.

23.1

1790

1.1

150.66

00

2.0

s.

75.1

150.66

61.80

902.0

Sta	Grade	L	C	R
408	411	RB 228	$\frac{+10.2}{25.4} \frac{+3.4}{8.0} \frac{+5.3}{8.0} +1.5$	$\frac{0.0}{3.0} \frac{-9.6}{27.2}$ RB 13.0

+	+40	230	$\frac{+5.5}{24.4} \frac{+0.7}{10.0} \frac{0.0}{7.0} -2.5$	$\frac{-10.5}{22.4}$ 8.0
---	-----	-----	--	--------------------------

408	+65	230	$\frac{+0.8}{23.2} \frac{0.0}{19.6} \frac{-3.7}{10.0} \frac{-2.0}{8.0} -4.3$	$\frac{-9.5}{17.0} \frac{-10.0}{20.8}$
-----	-----	-----	--	--

409	412	220	$\frac{0.0}{22.0} \frac{-4.3}{10.0} \frac{-3.0}{7.0} -5.3$	$\frac{-8.4}{16.0} \frac{-8.4}{18.6}$
-----	-----	-----	--	---------------------------------------

+	+50		$\frac{-2.0}{25.0} \frac{-3.0}{18.0} \frac{-4.5}{10.0} \frac{-5.3}{8.0} -6.7$	$\frac{-7.4}{17.2}$
---	-----	--	---	---------------------

+50

Box Culvert 1x2 1/2 x 4 1/2 inside

+	413		$\frac{0.0}{22.0} \frac{0.0}{14.0} \frac{-1.5}{9.0} \frac{-1.2}{8.0} -2.0$	$\frac{-2.2}{10.3}$
---	-----	--	--	---------------------

409	+10	21.0	$\frac{+1.3}{21.3} \frac{0.0}{8.0} \frac{0.0}{8.0} -0.7$	$\frac{-1.3}{9.0}$
-----	-----	------	--	--------------------

410	+20	20.0	$\frac{+2.1}{20.5} \frac{+1.2}{7.0} \frac{+1.5}{7.0} +1.0$	$\frac{0.0}{8.0}$
-----	-----	------	--	-------------------

410	+50	15.4	$\frac{+5.0}{16.7} +3.2$	$\frac{+1.6}{8.4}$
-----	-----	------	--------------------------	--------------------

410+	+80	11.0	$\frac{+5.0}{12.3} +1.6$	$\frac{0.0}{8.0}$
------	-----	------	--------------------------	-------------------

Areas Cub. Yds.

Exc. Emb. Exc. Emb.

134.51 4800 316.9 122.0

S. 229

130.6

939

41.84 78.75

S. 5.7

20.0

98.5

1.36 134.01

Sta 409+75 to 413+20

09

183.1

Emb 1024.9 Cu.

00 148.52

1399.0

203.1

S4.

made from cuts

1602.1

3096

185.82

205.3

00 35.90

1.6

8.6

84.5 10.50

S. 0.6

8.0

19

34.50 00

S. 5.5

66.4

Sta 413 to 416 Exp. 862.3 Cu.

85.06

S. 4.3

Class Slips Loose Rock 51.7

71.6

Balances Solid " 810.6 "

43.74

S. 1.3

20.0

Haul 112 So free

" 70 from 413+75 to 412+40 = 95

179.3

Waste 544.3

Section 8

Sta	Grade	L	C	R
400	414	$\frac{+1.0}{9.1}$	+0.2	$\frac{+1.0}{8.3}$
	+25	$\frac{+3.9}{9.0}$	+2.9	$\frac{+3.5}{8.9}$
408	+50	$\frac{+4.9}{9.2}$	+3.4	$\frac{+2.8}{8.7}$
409	+80	$\frac{+1.0}{8.3}$	+1.2	$\frac{+1.2}{8.3}$
	415	$\frac{+2.1}{8.5}$	+2.8	$\frac{+3.2}{8.8}$
	+50	$\frac{+5.8}{9.5}$	+5.3	$\frac{+4.5}{9.1}$
409	416	$\frac{+9.6}{10.4}$	+8.5	$\frac{+7.8}{10.0}$

END OF TAIL

410

411

410

412

Areas		Cub yds.	
Exc	Emb.	Exc.	Emb.
10.14		5. 179.3 2.1 30.4	
55.56		5. 3.2 54.1	
61.23		5. 1.6 44.4	
18.76		5. 0.2 23.8	
45.42		5. 12.4 125.8	
90.49		5. 20.5 228.5	
156.30		726.3 136.0 = 0.54. 862.3 ✓	

Section 8

Clearing

40	Stations	Width	Sq. Ft
	367-370	100'	30000 ✓
	370-373	70'	21000 ✓
	373-376 (tail)	60'	18000 ✓
40	378-385	80'	56000 ✓
	385-394	90'	81000 ✓
40	394-396	85'	17000 ✓
	396-407	80'	88000 ✓
	407-412	45'	37500 ✓
	412-415+50 Tail	60'	21000 ✓

369500 = 8⁴⁸ Acres

40

Box Culverts

379+80	2 x 2 1/2 x 68 inside = 2238 Ft. B.M.
41 394+80	2 x 3 1/2 x 32 " 1292. "
398+20	2 x 2 1/2 x 28 " 944. "
41 412+50	1 x 2 1/2 x 42 " 1096. "

5570 Ft. B.M.

410

41.

ON-R 376

ON L 394+80

Section 8

2

82

Ditches

Stations	Size	Total Exc.	L.R.	S.R.
367 to 369+70	Surf D.R. { 15x25x250.	34.9 ✓	17.4 ✓	17.3 ✓
370+40 1/2	{ 30x35x25.	9.7 ✓		9.7 ✓
371	" " R 15x30x55	9.2 ✓		9.2 ✓
376 1/2	Channel on R (See below)	58.4 ✓	19.5 ✓	38.9 ✓
394+80	Inlet to Culvert { 15x40x50 } { 30x60x120 }	9.1 (19.1)		9.1 (19.1)
394+80	Channel on L (See below)	13.4 ✓		13.4 ✓
		144.5	36.9	107.6

Cross Sections of Channels

Station	Areas			Cu.Yds.
0	0.0	0.0	0.0	
+15	0.0	14.0	9.0	9.2
	10.0	8.0	3.0	
+25	0.0	8.0	8.0	19.6
	8.5	7.0	1.5	
+40	0.0	14.5	13.5	22.6
	9.0	5.5	2.0	
+55	0.0		0.0	58.4
0	0.0	0.0	0.0	
+15	0.0	3.0	1.5	3.3
	1.0	5.0	7.0	
+25	0.0	3.2	2.0	4.5
	1.0	4.5	6.0	
+45	0.0	10.5	10.5	5.4
	1.0	5.0	6.0	
+50	0.0		0.0	13.4

Section 8

PAGE	Acres.	Excavation - Cu. Yds.			
		Total	Earth	Lo. Rock	S. Rock
		Clearing	Cut		
40		59	✓ 434.5	✓ 102	✓ 424.3
		60	✓ 31		✓ 31
		60	✓ 670.2		✓ 670.2
		61			
		61			
40		62	✓ 2023.0	✓ 393.7	✓ 1629.3
		63	✓ 11.9		✓ 11.9
		63	✓ 8.6		✓ 8.6
		64	✓ 4359.5	✓ 386.6	✓ 3972.9
40		65			
		66	✓ 1767.0	✓ 126.0	✓ 1641.0
		67			
		67			
		69	✓ 90.5		✓ 90.5
		70	✓ 1331.2	✓ 112.2	✓ 1219.0
		72	✓ 76.7		✓ 76.7
		72	✓ 12.7		✓ 12.7
		73	✓ 16.8		✓ 16.8
		74	✓ 1781.6	✓ 328.5	✓ 1453.1
		75	✓ 201.0		✓ 201.0
		77	✓ 1208.7		✓ 1208.7
40		78			
		79	✓ 1602.1	✓ 234.5	✓ 1367.6
		80	✓ 862.3	✓ 51.7	✓ 810.6
		82	8.48 ✓ 144.5	✓ 36.9	✓ 107.6
41			134.5		97.6
			✓ 848	✓ 16605.9	✓ 16803
					✓ 14925.6
41			✓ 16595.9		✓ 14915.6

41

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Summary

83

Cu. Yds	Cu. Yds	Borrow - Cu. Yd		Cu. Yds.	Lumber
Total in	Banks				in
Banks	made			Haul	Culverts
	from Cuts	Lo. Rock	S. Rock		Fr. B.M.
✓ 2355.3	✓ 2098.6	✓ 92.2	✓ 184.5	✓ 320	
✓ 161.9	✓ 161.9			✓ 442	
✓ 1.3	✓ 1.3			✓ 297	
✓ 325.8	✓ 325.8			✓ 6111	
✓ 3820.0	✓ 3243.1	✓ 192.3	✓ 384.6	✓ 1039	
✓ 5575.5	✓ 5575.5			✓ 7230	
✓ 176.7	✓ 176.7			✓ 2920	
✓ 44.9	✓ 44.9				
✓ 10.4	✓ 10.4				
✓ 2759.6	✓ 2759.6			✓ 2024	
✓ 1281.6	✓ 1281.6			✓ 6969	
✓ 167.1	✓ 167.1			✓ 98	
✓ 1027.0	✓ 702.3	✓ 108.2	✓ 216.5	✓ 1570	
✓ 1342.8	✓ 1342.8			✓ 893	
✓ 430.8	✓ 430.8			✓ 95	
✓ 1024.9	✓ 1024.9				5570
20505.6	19327.3	392.7	785.6	30008	5570

✓ 2970

Section 8

Borrow Pit in extra width 367+40 to 368+17

Station	C	R	Areas	Cub Yds.
367+40	$\frac{00}{84}$	$\frac{+80}{100}$	$\frac{+8.0}{11.0}$	5.60
+55	$\frac{00}{190}$	$\frac{+82}{101}$	$\frac{+136}{26.0}$	134.32
367+72	$\frac{00}{160}$	$\frac{+68}{97}$	$\frac{+124}{23.6}$	92.10
368+15	$\frac{00}{154}$	$\frac{+46}{184}$	$\frac{+17.02}{17.02}$	0.6
+17	$\frac{00}{80}$		$\frac{+0.0}{0.00}$	276.7

Borrow Pit in extra width of Cut 376+50 to 377+80

376+50	$\frac{00}{80}$		$\frac{+0.0}{+0.0}$	3.0
+78	$\frac{00}{80}$	$\frac{+52}{94}$	$\frac{+3.0}{12.0}$	8.70
376+92	$\frac{00+14}{80 \ 90}$	$\frac{+80}{100}$	$\frac{+1.0+3.6}{22.0 \ 27.0}$	78.80
377+15	$\frac{00}{80}$	$\frac{+54}{101}$	$\frac{+1.2}{27.0}$	$\frac{+6.0}{29.0}$
+27	$\frac{00}{80}$	$\frac{+118}{110}$	$\frac{+2.0}{37.0}$	$\frac{+5.0}{40.0}$
+37	$\frac{00}{80}$	$\frac{+122}{110}$	$\frac{+1.6}{39.0}$	$\frac{+4.6}{43.0}$
+45	$\frac{00}{80}$	$\frac{+123}{111}$	$\frac{+1.2}{29.0}$	$\frac{+8.0}{33.6}$
+60	$\frac{00}{80}$	$\frac{+127}{112}$	$\frac{+1.5}{28.8}$	$\frac{+10.0}{32.0}$
+80	$\frac{00}{80}$	$\frac{+147}{117}$	$\frac{+9.0}{15.6}$	$\frac{+11.4}{25.6}$

109.2
576.9

Section 8

84

Borrow Pit on Left 398+70 to 399+70

Station	L	C	Areas	Cub. yds.
398+70	$\frac{00}{80}$		0.00	0.6
+85	$\frac{+5.0}{104} \left(\frac{+4.6}{9.8} \right) \frac{00}{84}$		20.2	0.6
399	$\frac{00}{80}$		0.00	5.5
+18	$\frac{+6.8}{170} \left(\frac{+4.2}{9.1} \right) \frac{00}{84}$		16.52	4.4
+20	$\frac{+10.2}{240} \frac{00}{230} \left(\frac{+4.0}{9.0} \right)$		103.40	19.9
+25	$\frac{+10.0}{254} \frac{+0.6}{240} \frac{00}{210} \frac{-1.0}{160} \left(\frac{+3.6}{8.9} \right)$		112.00	22.9
+30	$\frac{+11.6}{278} \frac{+1.0}{254} \frac{00}{240} \frac{-0.8}{140} \left(\frac{+3.6}{8.9} \right)$		135.84	31.8
+35	$\frac{+14.4}{390} \frac{+0.4}{300} \frac{00}{245} \frac{-0.4}{190} \left(\frac{+3.6}{8.9} \right)$		208.12	125.8
+50	$\frac{+15.0}{436} \frac{00}{330} \left(\frac{+3.6}{8.9} \right)$		244.83	79.1
+60	$\frac{+16.8}{488} \frac{+1.0}{370} \frac{+1.8}{300} \left(\frac{+3.2}{8.8} \right)$		182.06	27.2
+65	$\frac{+16.0}{470} \frac{+1.0}{370} \frac{+3.6}{230} \left(\frac{+3.0}{8.8} \right)$		111.90	6.9
+70	$\frac{00}{80}$		0.00	324.7

SECTION 8 COST

4	CLEARING	848 ACRES @	\$35.00	✓	296.80
	EXCAVATION L ROCK	16803 CU YDS	0.45	✓	756.13
	"	S ROCK 14925.6	0.90	✓	13433.04
	BORROW L ROCK	3927	0.40	✓	157.08
4	"	S ROCK 7856	0.90	✓	707.04
	HAUL 100 FT.	30008	0.015	✓	450.12
4	LUMBER F.B.M.	5570	12.00#	✓	6684

15867.05

\$15858.04

296.80

756.13

+24.04

433.04

157.08

707.04

450.12

6684867.05

858.04

✓ 

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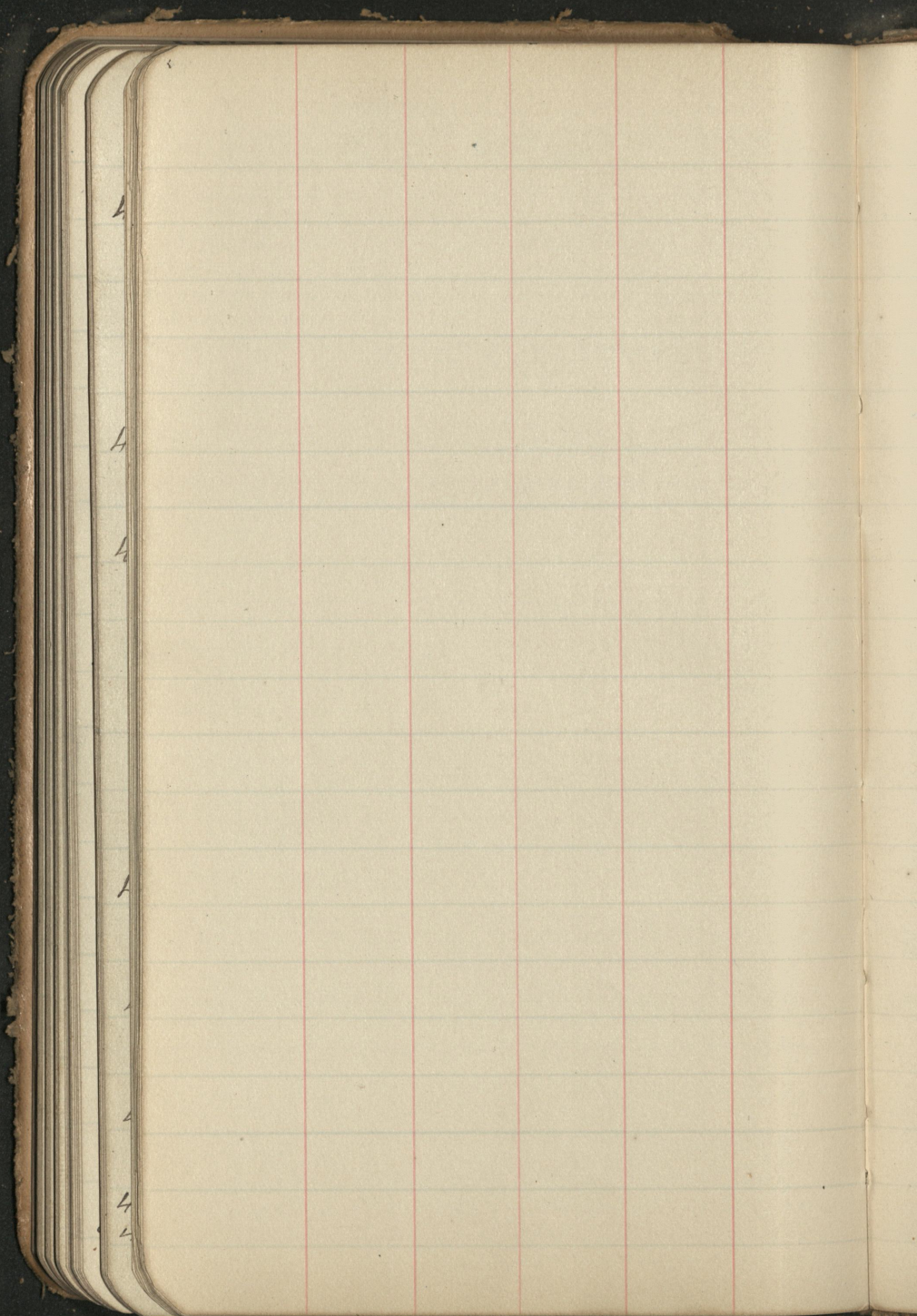
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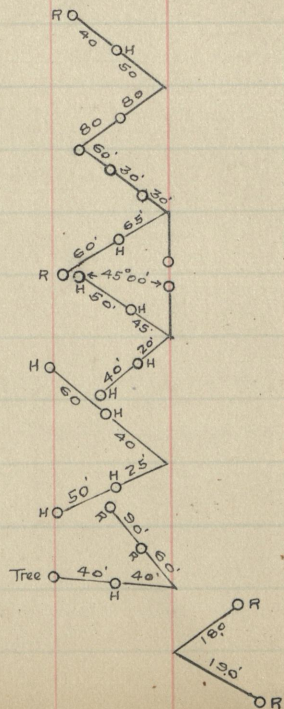
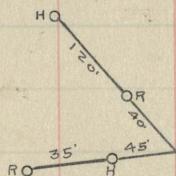
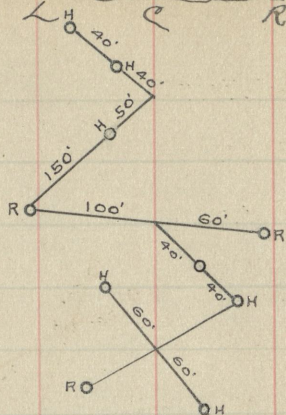
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Reference Points
L_H C R



Reference Points

90

L. C. R.

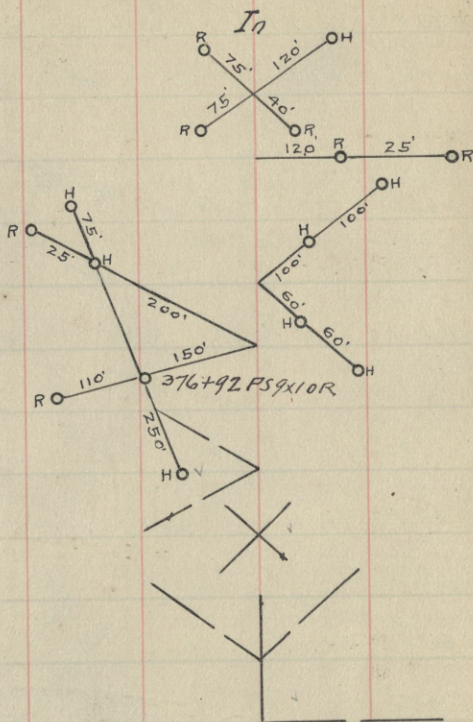
383+45 P.O.T.

375+02 P.T.

372+46² P.O.C.

371+22 PC 15° R

367+11¹ PT

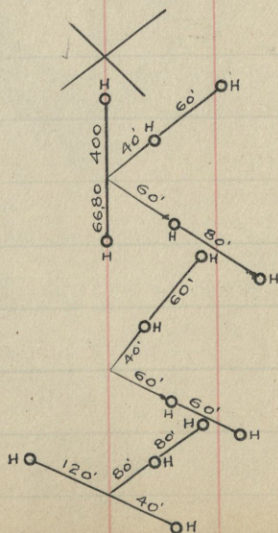


360+48 PS 9x10L

359+81¹ PT

357+23 PC 8° R

354+04 PT



Reference Points

349+36 PS. 7x12 R

348+87⁹ PT

345+83 PS 8x10 L

341+08⁸ PT

338+69 PC 8° L

337+62⁷ PT

333+89 PS. 9x10 R

333+60⁸ PT

327+84⁷ PS. 9x10 L Line change

325+27⁵ PT

325+83¹ PT

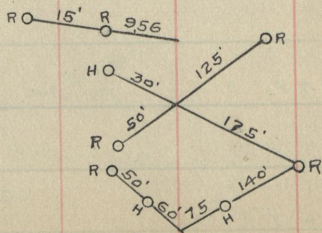
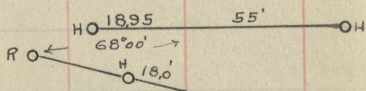
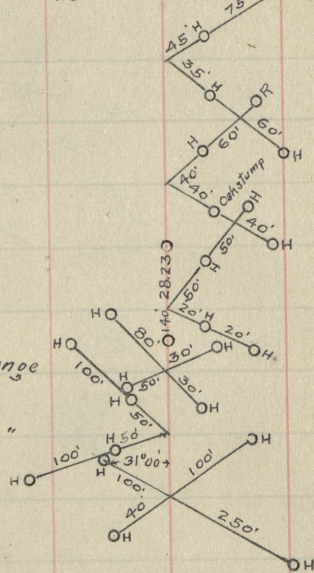
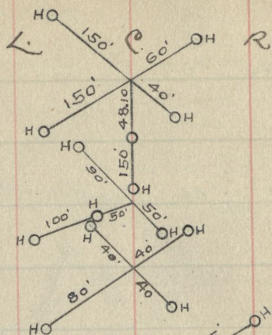
321+64 PC 15° L

318+00⁸ PT

313+96 PS 9x12 R

305+93⁷ PT

303+01⁵ PC. 6° R



Reference Points

91

302+27⁹³ P.O.T.

301+89⁷ P.T.

299+73 PC6°L

299+14 P.T.

295+76 PSX7X8R

295+29² P.T.

291+66 PS7X8L

290+50 P.O.T. Approx

289+84^L P.T.

282+94⁵ PS.6X15

283+85 Approx. Tan. pro.

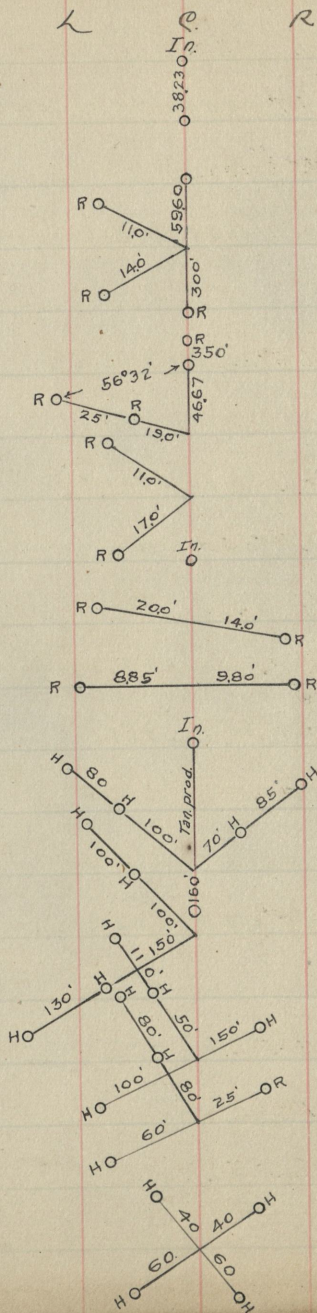
275+87 P.T.

271+57 PC6°L

269+40⁹ P.T.

266+02 PC.6°L

262+81³ P.T.



Bench Marks

			Elevation
On Hub.	100'R	275+50	4983.71
" "	25'L	291	4925.45
" "	40'R	308+25	4869.70
" Rock	75'L	321	4834.99
" Oak tree	25'R	333	4813.17
" Rock	35'R	348	4764.82
" Pinon	35'L	360+50	4723.95
" Hub.	50'L	364	4715.80
" "	70'L	373	4697.76
" Rock	35'R	377+20 Tail	4712.38
" "	35'L	380	4664.44
" Hub.	40'L	382	4675.91
" "	20'L	392+50	4637.24
" Oak stump	40'R	402+15	4597.77

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